UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Preliminary Effluent Guidelines Program Plan 15 86 Fed. Reg. 51,155 (Sept. 14, 2021)	Docket ID No. EPA-HQ-OW-2021-0547

COMMENTS OF THE ENVIRONMENTAL INTEGRITY PROJECT, EARTHJUSTICE, ANIMAL LEGAL DEFENSE FUND, CENTER FOR BIOLOGICAL DIVERSITY, COMITE CIVICO DEL VALLE, ENVIRONMENT AMERICA, FOOD & WATER WATCH, THE HUMANE SOCIETY OF THE UNITED STATES, U.S. PUBLIC INTEREST RESEARCH GROUP, WATERKEEPER ALLIANCE, WATERKEEPERS CHESAPEAKE, D'ANN WILLIAMS, AND ROBERT P. MARTIN

Submitted electronically: www.regulations.gov

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I. Introduction

The Environmental Integrity Project ("EIP"), Earthjustice, Animal Legal Defense Fund, Center for Biological Diversity, Comite Civico del Valle, Environment America, Food & Water Watch, The Humane Society of the United States, U.S. Public Interest Research Group, Waterkeeper Alliance, Waterkeepers Chesapeake, D'Ann Williams, and Robert P. Martin (collectively, "Commenters") respectfully submit these comments on Preliminary Effluent Guidelines Program Plan 15 ("Preliminary Plan 15" or "Plan") (Docket No. EPA-OW-2021-0547), published by the U.S. Environmental Protection Agency ("EPA" or "Agency") on September 14, 2021.[1]

Preliminary Plan 15 summarizes EPA's mandatory annual review of effluent limitation guidelines ("ELGs") and pretreatment standards for a variety of industrial point source categories. These comments are limited to EPA's review of ELGs and pretreatment standards for the Meat and Poultry Products category ("slaughterhouses"),[2] along with the Agency's decision to revise ELGs and promulgate pretreatment standards for this category, announced in Preliminary Plan 15 and in the Federal Register notice that accompanied the Plan's publication. As discussed in more detail below, EPA must act promptly to revise slaughterhouse ELGs and promulgate pretreatment standards for slaughterhouses. Water pollution from slaughterhouses harms human health and the environment, including vulnerable and under-resourced communities. In addition, clear data necessary to revise the ELGs are readily available to EPA. Thus, Commenters strongly urge EPA to revise the water pollution standards for the slaughterhouse industry without delay.

II. Slaughterhouses Generate Significant Quantities of Water Pollution.

According to EPA's latest estimate, the slaughterhouse industry includes over 7,000 facilities in which workers slaughter live animals, process animal carcasses, and render animal scraps into salable products such as tallow, lard, and animal meal.[3] Slaughterhouses perform three stages of operations. *First*, slaughterhouse workers receive live animals; stun, slaughter, and bleed them; and remove their hides, hair, feathers, and internal organs.[4] *Second*, workers cut the carcasses into smaller segments and process them into consumer products.[5] *Third*, workers render byproducts—such as viscera, meat scraps, fat, bone, blood, feathers, and dead animals not suitable for human consumption—into animal feed and other products.[6]

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[1] EPA, Preliminary Effluent Guidelines Program Plan 15 (2021) [hereinafter "Preliminary Plan 15"], *available at* https://www.epa.gov/system/files/documents/2021-09/ow-prelim-elg-plan-15_508.pdf.

[2] *See* 40 C.F.R. pt. 432.

[3] Preliminary Plan 15 at 6-2; EPA, Technical Development Document for the Final Effluent Limitations Guidelines and Standards for the Meat and Poultry Products Point Source Category (40 CFR 432) (2004) [hereinafter "2004 Technical Development Document"], at 1-2, 4-1, 4-56, *available at* https://www.epa.gov/sites/production/files/2015-11/documents/meat-poultry-products_tdd_2004_0.pdf.

[4] 2004 Technical Development Document at 4-5–4-10, 4-36–4-44.

[5] *Id.* at 4-13, 4-47.

[6] *Id.* at 4-56.

Slaughterhouses use large volumes of water to wash animal carcasses, rinse meat, remove animals' hair and feathers, and sanitize equipment and animal holding areas. Wastewater from slaughterhouses thus contains high levels of nitrogen and phosphorus, which originate from animal parts, viscera, urine and feces, and cleaning solutions.[7] Slaughterhouse wastewater also contains high levels of total suspended solids and bacteria such as *E. coli*, which—when discharged into rivers and streams—can degrade habitat, lower water quality, and threaten human health.[8] Slaughterhouses dispose of polluted wastewater through one—or some combination—of three methods: (1) discharging directly into surface waters ("direct discharge"), (2) sending their wastewater to publicly owned treatment works ("POTWs") for discharge into surface waters ("indirect discharge"), or (3) spraying wastewater onto land.[9] According to EPA estimates, the Agency's existing water pollution standards apply to approximately 300 slaughterhouses that are direct dischargers.[10]

The amount of wastewater generated by individual slaughterhouses varies widely based on processing capacity. The Smithfield plant in Tar Heel, North Carolina, can process over 32,000 pigs per day, whereas smaller slaughterhouses may process 10,000 animals in an entire year.[11] In addition, the amount of water used per 1,000 pounds of animals processed ranges from 580 to 2,440 gallons in poultry slaughterhouses, and from 291 to 532 gallons in cow and pig slaughterhouses.[12]

Not only does the amount of wastewater produced by slaughterhouses vary widely, so too does the concentration of pollutants in that wastewater. According to EPA, slaughterhouses discharge "the highest phosphorus levels and the second highest nitrogen levels of all industrial categories."[13] Yet many slaughterhouses discharge "these pollutants . . . at concentrations that can be reduced with current wastewater treatment technology."[14] Indeed, EPA has found that some slaughterhouses discharge pollutants at levels "well below" EPA's existing pollution limits.[15] In other words, EPA's pollution limits for slaughterhouses are far more lax than is technologically or economically necessary—and those limits are failing to drive necessary reductions in water pollution.

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[7] *See* EPA, Preliminary Effluent Guidelines Program Plan 14 (Oct. 2019) [hereinafter "Preliminary Plan 14"], at 3-10.

[8] 2004 Technical Development Document at 5-3, 6-3–6-4, 7-9–7-10.

[9] *Id.* at 1-2, 16-3, 16-5, 16-12.

[10] Preliminary Plan 15 at 6-2.

[11] Steve Meyer, *Slaughterhouse Capacity Sufficient—For Now*, Nat'l Hog Farmer (Aug. 11, 2015), *available at* https://www nationalhogfarmer.com/marketing/slaughter-capacity-sufficient-now; Abbie Fentress Swanson, *Small Meat Producers Take Their Slaughterhouse Gripes to Congress*, Nat'l Pub. Radio (Oct. 15, 2015), *available at* https://www.npr.org/sections/thesalt/2015/10/15/448942740/small-meat-producers-take-their-slaughterhouse-gripes-to-congress.

[12] 2004 Technical Development Document at 6-3, 6-8–6-9.

[13] Preliminary Plan 15 at 6-2.

[14] *Id.*

[15] *Id.*

III. The Clean Water Act Requires EPA to Control Water Pollution from Slaughterhouses.

The Clean Water Act ("CWA" or "Act") sets a national goal of eliminating water pollution.[16] In furtherance of this goal, the Act requires EPA to promulgate increasingly stringent pollution limits and pretreatment standards for certain classes and categories of industrial polluters and to revise these regulations to keep pace with advances in technology.[17] By mandating that EPA establish national minimum standards based on what is technologically achievable, the CWA guarantees "that similar point sources with similar characteristics" will achieve similar pollution-reduction targets, regardless of their location.[18]

A. EPA Must Control Pollution from Direct Dischargers Through Increasingly Stringent Effluent Limitation Guidelines and Associated Effluent Limitations.

For facilities that discharge pollutants directly into surface waters, Congress directed EPA to promulgate pollution limits in the form of national, industry-specific ELGs, which form the basis of specific effluent limitations included in individual wastewater discharge permits.[19]

The CWA requires EPA to revise ELGs "at least annually," if appropriate.[20] To revise ELGs, EPA first must determine the amount of pollution reduction attainable by a particular industry through the application of appropriately advanced wastewater treatment technology.[21] Second, EPA must establish industry-specific minimum standards corresponding to the application of that technology.[22] And third, permitting officials must translate EPA's ELGs into specific effluent limitations and incorporate those limitations into each facility's wastewater discharge permit.[23]

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[16] 33 U.S.C. § 1251(a)(1).

[17] *See* 33 U.S.C. §§ 1311(b)(2), 1314(b), 1316, 1317(b)–(c); *see also Sw. Elec. Power Co. v. EPA*, 920 F.3d 999, 1005 (5th Cir. 2019) (explaining that the CWA is "'technology-forcing,' meaning it seeks to 'press development of new, more efficient and effective [pollution-control] technologies'" (alteration in original) (citing *Nat. Res. Def. Council, Inc. v. EPA*, 822 F.2d 104, 123 (D.C. Cir. 1987))).

[18] *Nat. Res. Def. Council, Inc. v. Train*, 510 F.2d 692, 709–10 (D.C. Cir. 1974) (citation omitted).

[19] Effluent limitations are "restriction[s] . . . on [the] quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from [any discernable, confined, and discrete conveyance, such as a pipe] into navigable waters." 33 U.S.C. § 1362(11); *see id.* § 1314(b) (directing EPA to publish regulations establishing ELGs "[f]or the purpose of adopting or revising effluent limitations"); *see id.* § 1311; *see also Tex. Oil & Gas Ass'n v. EPA*, 161 F.3d 923, 927 (5th Cir. 1998) (explaining that Congress designed the CWA to eliminate water pollution "through a system of effluent limitation guidelines").

[20] 33 U.S.C. § 1314(b).

[21] *Id.* § 1314(b)(1).

[22] *Id.* § 1311(b)(2).

[23] *Id.* § 1342; *see Waterkeeper All., Inc. v. EPA*, 399 F.3d at 486, 491 (2d Cir. 2005) ("The specific effluent limitations contained in each individual . . . permit are dictated by the terms of more general [ELGs], which are separately promulgated by the EPA.").

EPA's annual decision about the appropriateness of revising ELGs is "unambiguous[ly] . . . constrained by the [CWA's] mandate as to what 'such regulations' 'shall' accomplish."[24] With respect to pollutants such as ammonia and total nitrogen from existing facilities, ELGs "shall" identify the degree of pollution reduction achievable through application of the "best available technology" or "BAT."[25] BAT represents "the gold standard for controlling water pollution from existing sources," and it must be based, at a minimum, "on the performance of the single best-performing plant in an industrial field."[26] "In setting BAT, EPA uses not the average plant, but the optimally operating plant, the pilot plant which acts as a beacon to show what is possible."[27]

B. EPA Must Control Pollution from Indirect Dischargers by Promulgating Pretreatment Standards.

Unlike direct dischargers, *indirect* dischargers send their wastewater to POTWs, which collect and treat wastewater from various sources before discharging it into surface waters. If indirect dischargers fail to apply appropriately advanced wastewater treatment technology, POTWs may be unable to treat their wastewater, resulting in excess discharge of pollutants.[28] EPA repeatedly has acknowledged that some POTWs are unable to treat ammonia and other pollutants in slaughterhouse wastewater.[29] Indeed, the Agency's "review of 200 [indirect-discharging slaughterhouses] shows that 73 percent of the POTWs receiving [slaughterhouse] wastewater have violation(s) of permit limits for pollutants found in [slaughterhouse] wastewater."[30]

To limit pollution from indirect dischargers, Congress directed EPA to publish guidelines that control and prevent the discharge of "any pollutant which interferes with, passes through, or otherwise is incompatible with [POTWs]."[31] In addition, Congress mandated that EPA establish pretreatment standards applicable to particular industries and revise those standards "from time to time," keeping pace with advancing technology.[32] (For simplicity and convenience, Commenters refer to pretreatment guidelines and pretreatment standards collectively as "pretreatment standards.") Like ELGs, technology-based pretreatment standards "ensure that industrial facilities with similar characteristics will, at a minimum, meet similar . . . pretreatment standards representing the performance of the 'best' pollution control technologies, regardless of

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[24] *Our Children's Earth Found. v. EPA*, 527 F.3d 842, 851 (9th Cir. 2008).

[25] 33 U.S.C. § 1314(b)(2)(B); *see Sw. Elec. Power Co.*, 920 F.3d at 1006 (explaining that existing, direct dischargers are subject to BAT); *see also* Preliminary Effluent Guidelines Program Plan for 2004/2005, 68 Fed. Reg. 75,515, 75,518 (Dec. 31, 2003) (stating that EPA "must consider" statutory factors relating to the identification of BAT "when deciding whether to . . . revise effluent guidelines").

[26] *Sw. Elec. Power Co.*, 920 F.3d at 1003, 1006 (quoting *Chem. Mfrs. Ass'n v. EPA*, 870 F.2d 177, 226 (5th Cir. 1989))

[27] *Kennecott v. EPA*, 780 F.2d 445, 448 (4th Cir. 1985)

[28] *See Chem. Mfrs. Ass'n*, 870 F.2d at 197.

[29] *See, e.g.*, 67 Fed. Reg. 64,216, 64,227 (Oct. 17, 2002) (explaining that some POTWs "do not have nitrification capability" necessary to treat ammonia).

[30] Preliminary Plan 15 at 6-2.

[31] 33 U.S.C. § 1314(g)(1).

[32] *Id.* § 1317(b)(2).

their location or the nature of . . . [the] POTW into which they discharge."[33] EPA considers the same factors for setting "Pretreatment Standards for Existing Sources" ("PSES") for existing indirect dischargers as it does for BAT limitations for existing direct dischargers.[34]

C. EPA's Existing Water Pollution Standards are Outdated and Do Not Adequately Protect Human Health and the Environment.

In 2004, as described below, EPA published and revised ELGs for "non-small" meat and poultry slaughterhouses. "Small" meat slaughterhouses are still subject to ELGs promulgated in the mid-1970s, and "small" poultry slaughterhouses are not subject to any ELGs at all. EPA has never published pretreatment standards for any slaughterhouses.

"Non-small" Slaughterhouses

The ELGs govern "non-small" meat slaughterhouses and "non-small" poultry slaughterhouses.[35] "Non-small" meat slaughterhouses are facilities that slaughter more than 50 million pounds of animals each year, produce more than 50 million pounds of finished product each year, or render 10 million pounds or more per year of raw material.[36] "Non-small" poultry slaughterhouses include facilities that either slaughter more than 100 million pounds per year in live weight killed or further process more than 7 million pounds of finished product per year.[37]

Applying the BAT standard, the ELGs require existing[38] "non-small" meat slaughterhouses to meet a total nitrogen monthly average limit of 134 milligrams per liter ("mg/L"), a total nitrogen daily maximum limit of 194 mg/L, an ammonia monthly average limit of 4 mg/L, and an ammonia daily maximum limit of 8 mg/L.[39] The ELGs also require existing "non-small" poultry slaughterhouses to meet a total nitrogen monthly average limit of 103 mg/L, a total nitrogen daily maximum limit of 147 mg/L, an ammonia monthly average limit of 4 mg/L, and an ammonia daily maximum limit of 8 mg/L.[40]

To treat total nitrogen and ammonia, EPA based the ELGs on nitrification technology to convert ammonia into nitrate, another nitrogen compound that can be toxic to humans and aquatic life.[41]

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[33] Preliminary Plan 15 at 2-1.

[34] 33 U.S.C. § 1317(b)(1); *see id.* § 1314(b)(2)(B).

[35] 69 Fed. Reg. 54,476, 54,488 (Sept. 8, 2004); *see* 40 C.F.R. Part 432.

[36] 69 Fed. Reg. at 54,488; *see* 40 C.F.R. §§ 432.10–432.107.

[37] 69 Fed. Reg. at 54,484–85; see 40 C.F.R. §§ 432.110–432.127.

[38] "Existing" slaughterhouses are facilities for which construction commenced before the publication of final regulations. *See* 2004 Technical Development Document at 16-3. "New" slaughterhouses are subject to New Source Performance Standards, which represent the most stringent controls attainable through the application of the best available demonstrated control technology. 33 U.S.C. § 1316.

[39] *See* 40 C.F.R. §§ 432.13, 432.23, 432.33, 432.43, 432.63, 432.73, 432.83, 432.93, 432.103.

[40] *See* 40 C.F.R. §§ 432.113, 432.123.

[41] *See* 2004 Technical Development Document at 9-2; *see also* Water Education Foundation, *Nitrate Contamination* (last accessed Oct. 5, 2021), *available at* https://www.watereducation.org/aquapedia/nitrate-contamination.

The Agency also based the ELGs only on partial denitrification to remove some of the nitrate/nitrite produced during the nitrification process.[42]

Even though slaughterhouses are the largest industrial source of phosphorus water pollution, the ELGs do not limit the amount of phosphorus discharged in slaughterhouse wastewater.[43]

"Small" Slaughterhouses

Meat and poultry slaughterhouses that do not meet the production thresholds discussed above are categorized as "small."[44] "Small" meat slaughterhouses and "small" poultry slaughterhouses are still subject to ELGs promulgated in the mid-1970s. The ELGs do not limit the amount of total nitrogen or ammonia discharged by "small" slaughterhouses in their wastewater. Like "non-small" facilities, the ELGs do not currently control the amount of phosphorus discharged by "small" slaughterhouses.

IV. EPA Must Act Promptly to Revise ELGs and Promulgate Pretreatment Standards for Slaughterhouses.

EPA has the imperative and the ability to act promptly to revise the slaughterhouse ELGs and pretreatment standards.[45] *First*, slaughterhouse pollution not only harms people, including vulnerable and under-resourced communities, but also presents one of the most widespread, costly challenges to protecting the country's waterways. *Second*, EPA has access to the information necessary to revise the ELGs without further delay.

A. Water Pollution from Slaughterhouses Harms People and the Environment.

Every year, slaughterhouses discharge approximately 16.5 million pounds of nitrogen and 2.84 million pounds of phosphorus, collectively known as nutrient pollution,[46] along with at least 63 additional pollutants and 17 metals,[47] into surface waters in the United States. According to EPA, "[n]utrient pollution is one of the most widespread, costly, and challenging environmental problems impacting water quality in the United States."[48] The Chesapeake Bay, the Gulf of Mexico, Long Island Sound, and Puget Sound are among our nation's "particular[ly] importan[t]," iconic waterbodies imperiled by nutrient pollution.[49] EPA has acknowledged that

[42] 2004 Technical Development Document at 9-4–9-5.

[43] Preliminary Plan 15 at 6-2.

[44] 69 Fed. Reg. at 54,484–85, 54,488–89; see 40 C.F.R. §§ 432.10–432.107, 432.110–432.127.

[45] In addition to direct dischargers that pipe effluent directly into waterways and indirect discharger that send wastewater to a local POTW, slaughterhouses also dispose of wastewater by spraying it on land. Spraying wastewater on land can contaminate drinking water wells, and Commenters are by no means advocating for spraying to serve as an alternative to discharging it to waterways.

[46] Preliminary Plan 14 at 3-4–3-5 figs.3-1, 3-3.

[47] Preliminary Plan 15 at 6-3.

[48] Preliminary Plan 14 at 3-3.

[49] Water Environment Research Foundation ("WERF"), Striking the Balance Between Nutrient Removal in Wastewater Treatment and Sustainability (2011), at 2-2 [hereinafter, "WERF Report"].

"[e]xcessive nitrogen and phosphorus in surface water can lead to a variety of problems, including . . . harmful algal blooms, with impacts on drinking water, recreation, and aquatic life."[50]

Slaughterhouse water pollution emits "putrid,"[51] "repulsive odor[s],"[52] which "often permeate[] . . . whole town[s]," including individual homes.[53] In addition, slaughterhouse pollution feeds algal blooms that "give off a terrible smell, making it very unpleasant to spend time on or near the [water]."[54] For example, "in the Shenandoah River, algal blooms can be so thick that it is impossible to paddle a kayak, let alone fish."[55]

Inadequately controlled pollution from slaughterhouses has "fundamentally changed" the manner in which many people interact with the water.[56] For instance, the Assateague Coastkeeper "would not dare wade in some . . . waterbodies near [her] home [on the Eastern Shore of Maryland]—let alone swim in them—because pollution from slaughterhouses . . . has severely degraded water quality throughout [the] region."[57] According to the Black Warrior Riverkeeper, he and many of his organization's members avoid swimming and engaging in other activities in Graves Creek, which receives wastewater from a slaughterhouse in Blountsville, Alabama, for fear of exposure to dangerous levels of bacteria and other pollution; one member, in particular, "stopped kayaking . . . because he got sick after paddling" downstream of the slaughterhouse.[58] The Executive Director of Comite Civico del Valle "does not think it is safe to swim" in the New River in Imperial County, California, which receives wastewater from a slaughterhouse.[59] As he explains, "it certainly is not very pleasant to spend time nearby."[60]

[50] Preliminary Plan 14 at 3-3; *see also* 2004 Technical Development Document at 7-10–7-11 (acknowledging that ammonia nitrogen can be toxic to fish and other aquatic organisms).

[51] Decl. of Danielle Wirth ¶ 10 (sworn to on July 19, 2020). Compilation of declarations submitted by Commenters attached hereto as Attachment A.

[52] Attachment A: Decl. of Sara Parker ¶ 4 (sworn to on July 14, 2020) ("Parker Decl.").

[53] Attachment A: Decl. of Nancy Thompson ¶ 6 (sworn to on July 27, 2020) ("Thompson Decl."); *see* Parker Decl. at ¶¶ 3–5 (explaining that the smell of pollution from a slaughterhouse in Sioux Falls, South Dakota travels miles from the facility).

[54] Attachment A: Decl. of Robin Broder ¶ 5 (sworn to on July 30, 2020).

[55] *Id.*

[56] Attachment A: Decl. of Kathy Phillips ¶ 8 (sworn to on July 24, 2020).

[57] *Id.* at ¶ 9.

[58] Attachment A: Decl. of Nelson Brooke ¶ 12 (sworn to on July 30, 2020).

[59] Attachment A: Decl. of Luis Olmedo ¶ 11 (sworn to on August 3, 2020).

[60] *Id.*

B. Water Pollution from Slaughterhouses Disproportionately Harms Vulnerable and Under-Resourced Communities.

According to EPA, 74 percent of direct-discharging slaughterhouses "are within one mile of census block groups with demographic or environmental characteristics of concern."[61] As EPA recognizes, "[t]his indicates that such facilities may be disproportionately impacting communities of concern."[62] Indeed, as shown in Table 1 and discussed below, an analysis of 184 direct-discharging slaughterhouses reveals that many are located near vulnerable communities (*see also* Maps 1–3).[63]

Table 1. Slaughterhouses and Vulnerable Communities[64]

EJSCREEN Index	Mean Percentile Across 184 Facilities	Number of Facilities AT 80th + Percentile
National percentile for Particulate Matter (PM 2.5 in µg/m3)	47.55	10
National percentile for Ozone (ppb)	42.41	5
National percentile for NATA Diesel PM (µg/m3)	24.68	1
National percentile for NATA Air Toxics Cancer Risk (risk per MM)	44.14	35
National percentile for NATA Respiratory Hazard Index	43.78	30
National percentile for Traffic Proximity and Volume (daily traffic count/distance to road)	32.47	3
National percentile for Lead Paint Indicator (% pre-1960s housing)	58.12	16

[61] Preliminary Plan 15 at 6-2.

[62] *Id.*

[63] *See* EPA, EPA-HQ-OW-2018-0618-0489, Meat and Poultry DMR and TRI Concentration Data (2018) [hereinafter "2015 National Sample of Slaughterhouse Data"] (containing, among other things, a national sample of 97 plants with total nitrogen data and 119 plants with ammonia data), *available at* https://www.regulations.gov/document/EPA-HQ-OW-2018-0618-0489; EPA, EPA-HQ-OW-2018-0618-0516, 2015 DMR Nitrogen Discharges in Chesapeake (2019) [hereinafter, "2015 Chesapeake DMR Data"] (containing, among other things, the highest monthly average concentrations of total nitrogen for a list of facilities in the Chesapeake Bay watershed) *available at* https://www.regulations.gov/document/EPA-HQ-OW-2018-0618-0516; EPA, EPA-HQ-OW-2018-0618-0517, 2015 DMR Nitrogen Discharges to Mississippi-Atchafalaya (2019) [hereinafter, "2015 Mississippi-Atchafalaya DMR Data"] (containing, among other things, the highest monthly average concentrations of total nitrogen for a list of facilities in the Mississippi-Atchafalaya watershed) *available at* https://www regulations.gov/document/EPA-HQ-OW-2018-0618-0517.

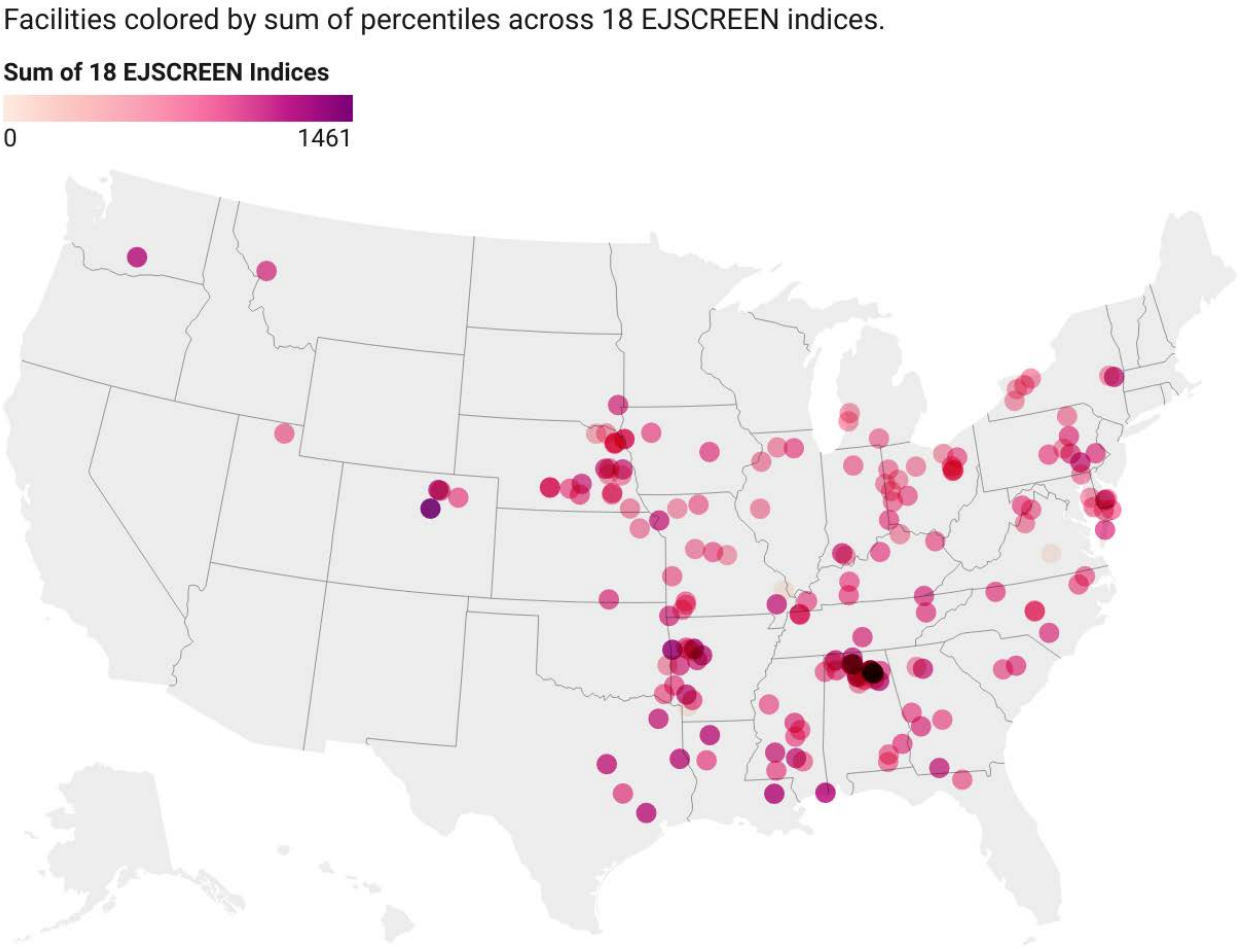
[64] EJSCREEN was used to quantify 18 demographic and environmental indices for populations within one mile buffer of 184 slaughterhouses. *See* https://ejscreen.epa.gov/mapper/EJAPIinstructions.pdf and https://www.epa.gov/sites/default/files/2015-05/documents/ejscreen_technical_document_20150505.pdf#page=13 for documentation.

EJSCREEN Index	Mean Percentile Across 184 Facilities	Number of Facilities AT 80th + Percentile
National percentile for Superfund Proximity (site count/km distance)	29.01	9
National percentile for RMP Proximity (facility count/km distance)	68.44	76
National percentile for Minority Population	39.22	8
National percentile for Demographic Index (Combination or minority and low-income indices)	49.04	23
National average for Low Income Population	62.83	52
National average for Linguistically Isolated Population	58.96	36
National average for Population with Less Than High School Education	69.91	65
National average for Population under Age 5	56.13	34
National average for Population over Age 64	58.75	36
National average for Hazardous Waste Proximity (facility count/km distance)	27.85	2
National average for Wastewater Discharge Indicator	70.84	61

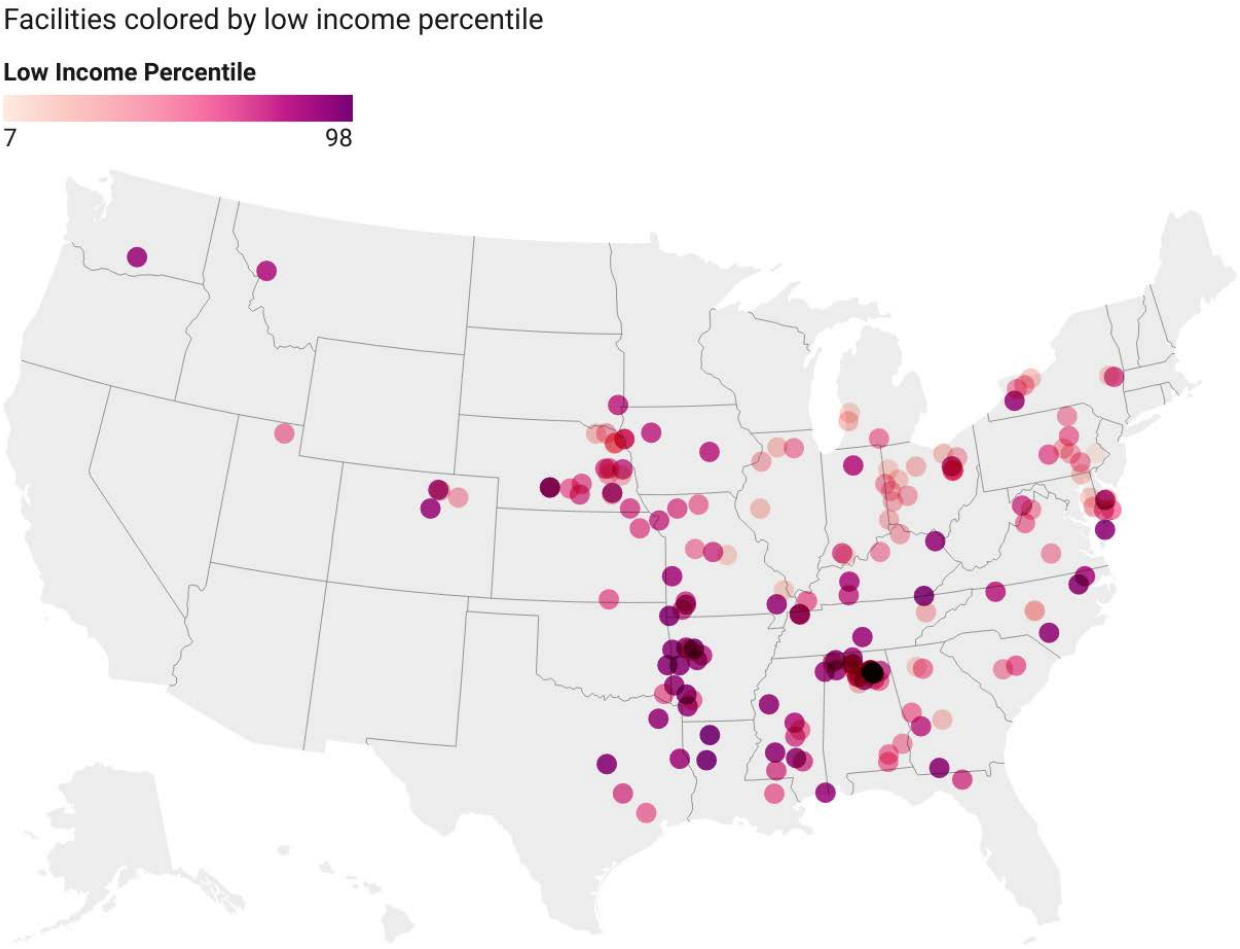
Shaded rows indicate EJSCREEN indices for which the mean percentile across analyzed slaughterhouses is greater than 50, indicating a greater average exposure or demographic proportion for communities within one mile of slaughterhouses than the national average.

At least 34 direct-discharging slaughterhouses are located in areas where communities within one mile of the slaughterhouse rank in the 80th percentile with respect to the proportion of residents under the age of five, and at least 36 direct-discharging slaughterhouses are located in areas where communities within one mile of the slaughterhouse rank in the 80th percentile with respect to the proportion of residents over the age of 65. On average, direct-discharging slaughterhouses disproportionately harm households that EPA classifies as "low-income," meaning that the household income is less than or equal to twice the federal "poverty level," and as "linguistically isolated," meaning that no household member over the age of 14 speaks English "very well" or as an only language. And at least 65 direct-discharging slaughterhouses are located in areas where the community within one mile of the slaughterhouse ranks in the 80th percentile with respect to the proportion of residents aged 25 and over with less than a high-school degree.

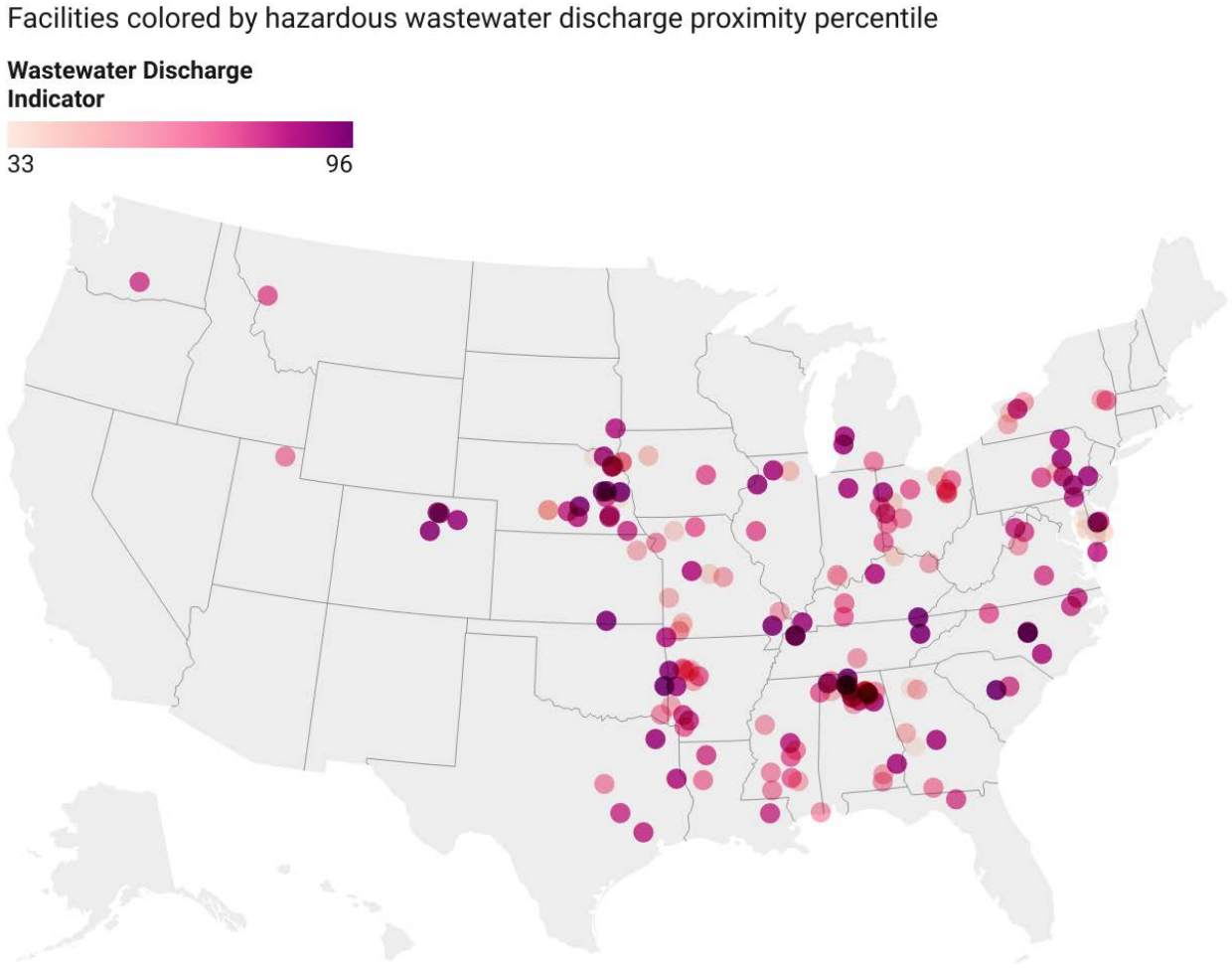
Map 1. Select Direct-Discharging Slaughterhouses and 18 EJSCREEN Indices



Map 2. Select Direct-Discharging Slaughterhouses and Low-Income Communities



Map 3. Select Direct-Discharging Slaughterhouses and Exposure to Toxic Wastewater Discharges



Direct-discharging slaughterhouses also disproportionately harm under-resourced communities. On average, people living within one mile of a direct-discharging slaughterhouse are at heightened risk of exposure to lead paint and chemical accidents. At least 61 direct-discharging slaughterhouses are located within one mile of communities that rank in the 80th percentile for toxic discharges in wastewater (*see supra* Map 3).

Not only are direct-discharging slaughterhouses, on average, disproportionately located in vulnerable and under-resourced communities, but several individual facilities are clustered closely together in areas where surrounding communities rank highly for multiple demographic and environmental justice indicators used by EPA to evaluate environmental justice concerns. For example, the community within one mile of the Alabama Farmers Cooperative Inc. facility in Decatur, Alabama is in the 91st percentile for lifetime cancer risk from inhalation of air toxics, meaning community members have a higher risk of cancer from air toxic exposure than 91 percent of the U.S. In addition, the community within one mile of this facility is in the 90th percentile for proximity to facilities with risk management plans ("RMPs"), meaning community members are at higher risk of exposure to toxic releases from chemical accidents than 90 percent of the U.S. This community is over the 80th percentile in terms of exposure to respiratory

hazards, proximity to high traffic, and exposure to lead paint in housing. And it is over the 70th percentile for the proportion of the population with less than a high school education, the proportion of the population with incomes less than or equal to twice the federal "poverty level," and the proportion of the population over 64.

The community within one mile of the Alabama Farmers Cooperative facility is also at heightened risk of exposure to toxic discharges in wastewater, as it ranks over the 75th percentile in terms of proximity to toxicity-weighted pollutant discharges. In addition, this community is likely to experience impacts from several other direct-discharging slaughterhouses such as the Big Heart Pet Brands facility, which is located only 0.2 miles away from the Alabama Farmers Cooperative facility. Indeed, across the country, multiple direct-discharging slaughterhouses are closely located with other direct-discharging slaughterhouses, as illustrated in Map 3, indicating the potential for overlapping impacts on already vulnerable and under-resourced communities.

As EPA moves forward with the revision of ELGs and the promulgation of pretreatment standards for the slaughterhouse industry, we urge the Agency to prioritize equity and environmental justice. In particular, EPA must evaluate the degree to which indirect-discharging slaughterhouses harm vulnerable and under-resourced communities and ensure that communities directly harmed by slaughterhouses have the opportunity to participate meaningfully in the revision and promulgation processes.

C. EPA Has or Can Easily Obtain Information Necessary to Revise the ELGs.

EPA already possesses a large amount of the information required to revise the slaughterhouse ELGs without delay. *First*, EPA has collected years' worth of Discharge Monitoring Report ("DMR") data showing that EPA should set ELG BAT limits to, at a minimum, the level of pollution reduction achievable by the best performing slaughterhouses. *Second*, EPA has, or can easily obtain, information about the best available nutrient removal technology employed by slaughterhouses, POTWs, and other industries to meet the Chesapeake Bay's cleanup plan to reduce nutrient pollution to the Chesapeake Bay Watershed.

1. Discharge Monitoring Reports Provide Ample, Reliable Data to Update the Slaughterhouse ELGs.

DMR data provide ample, robust, and reliable evidence demonstrating that slaughterhouses are capable of significantly reducing the level of nutrients in their wastewater. EPA has explained that DMRs are "the most comprehensive data source quantifying pollutants discharged directly to surface waters" and characterized DMR data as "robust and reliable."[65] Along with Preliminary Plan 14, EPA released 2015 slaughterhouse DMR data gathered and analyzed during the Agency's previous 2016, 2017, and 2018 reviews containing total nitrogen discharge data from 97 direct-discharging slaughterhouses and ammonia discharge data from 119 direct-discharge slaughterhouses.[66] Based on this data, EPA found that the median annual average total

[65] EPA, EPA-HQ-OW-2018-0618-0569, Review of Nutrients in Industrial Wastewater Discharge (2019), at 2-2–2-3.

[66] *See* 84 Fed. Reg. 57,019, 57,019 (Oct. 24, 2019) (explaining that EPA summarizes the Agency's annual reviews from 2016, 2017, and 2018 in Preliminary Plan 14).

nitrogen concentration—32.8 mg/L—is "well below the ELG monthly average."[67] Courts have established that the BAT standard requires EPA to "use[] not the average plant, but the optimally operating plant, the pilot plant which acts as a beacon to show what is possible."[68]

The DMR data prove two overarching points. *First,* a closer look for the best-performing group of slaughterhouses—putting aside the optimally performing plant for the sake of argument—shows the high level of nutrient reduction that the industry is capable of achieving.[69] The best-performing quartile of meat plants discharged an annual average concentration of *1.8 mg/L of total nitrogen* (74 times lower than the existing 134 mg/L total nitrogen monthly average ELG for meat plants) and *0.12 mg/L of ammonia* (33 times lower than the existing 4 mg/L ammonia ELG).[70] Likewise, the best-performing quartile of poultry plants discharged an average concentration of *6.3 mg/L of total nitrogen* (16 times lower than the existing 103 mg/L total nitrogen ELG for poultry plants) and *0.16 mg/L of ammonia* (25 times lower than the existing 4 mg/L ammonia monthly average ELG).[71]

Second, the 2015 DMR data show that slaughterhouses *can* consistently achieve a high level of nutrient reduction. EPA's data also include the highest monthly average total nitrogen concentration reported by slaughterhouses in the Chesapeake Bay and Mississippi-Atchafalaya watersheds.[72] A review of these data shows that the monthly average total nitrogen discharges of the best-performing quartile of meat plants never exceeded 2.4 mg/L in any month in 2015.[73] Meanwhile, the monthly average total nitrogen discharges of the best-performing poultry plants never exceeded 6.2 mg/L in any month that year.[74] These data demonstrate not only that revisions to the ELGs are warranted as limits are no longer driving slaughterhouses to reduce their pollution levels, but also that EPA should set substantially lower ELG limits for nutrients. This information is already at EPA's disposal.

More recent DMR data, again at EPA's disposal, further support finding that EPA should significantly tighten the ELG limits in order to reduce nutrient pollution. In 2018, EIP released a report examining, among other things, DMR data from January 2016 through June 2018 for 98 large slaughterhouses (i.e., facilities discharging 250,000 gallons per day or more of

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[67] Preliminary Plan 14 at 3-14.

[68] *Kennecott*, 780 F.2d at 448.

[69] *See* 2015 National Sample of Slaughterhouse Data; 2015 Chesapeake DMR Data; 2015 Mississippi-Atchafalaya DMR Data.

[70] *See* 2015 National Sample of Slaughterhouse Data. Meat and poultry plants were distinguished by using Standardized Industrial Classification, or "SIC", codes, which were provided for each facility in EPA's spreadsheets. The ELGs for meat plants apply to facilities with SIC codes of 2011 (Meat Packing Facilities), 2013 (Sausages and Other Prepared Meats), 2047 (Dog and Cat Food), 2048 (Prepared Feed and Feed Ingredients for Animals and Fowls, Except Dogs and Cats), and 2077 (Animal and Marine Fats and Oils). 40 C.F.R. § 432.1. The ELGs for poultry plants apply to facilities with the SIC code of 2015 (Poultry Slaughtering and Processing). *Id.*

[71] 2015 National Sample of Slaughterhouse Data.

[72] *See* 2015 Chesapeake DMR Data; 2015 Mississippi-Atchafalaya DMR Data.

[73] *See* 2015 Chesapeake DMR Data; 2015 Mississippi-Atchafalaya DMR Data.

[74] *See* 2015 Chesapeake DMR Data; 2015 Mississippi-Atchafalaya DMR Data.

wastewater).[75] The report found that more than half of slaughterhouses discharged at less than a third of the applicable total nitrogen ELG monthly average limit for poultry plants (103 mg/L).[76] A review of 2020 DMR data for the same slaughterhouses reaffirms the industry's ability to significantly reduce the amount of nitrogen pollution in their wastewater.[77] In its 2020 DMR Total Nitrogen Analysis for Large Slaughterhouses, EIP ranked the facilities using the mean of the total nitrogen monthly average concentrations discharged by each slaughterhouse that year, from lowest to highest.[78] Table 2 displays the ten slaughterhouses with the lowest reported mean total nitrogen monthly averages in 2020, along with the ranges reported by each facility that year.[79]

Table 2. Ten Slaughterhouses with Lowest Mean Monthly Average Total Nitrogen Concentrations in 2020

Slaughterhouse Name	Location (City, State)	Product Type	NPDES Permit No.	Mean Total Nitrogen Concentration (mg/L)	Total Nitrogen Concentration Ranges (mg/L)
Peco Foods	Pocahontas, AR	Poultry	AR0052451	2.38	0.8 – 3.3
Empire Kosher Poultry	Mifflintown, PA	Poultry	PA0007552	2.83	2 – 4
Tyson Farms	Temperanceville, VA	Poultry	VA0004049	3.38	1.8 – 4.9
Conagra Foods	Quincy, MI	Meat	MI0003042	3.59	2.1 – 4.7
George's Chicken	Edinburg, VA	Poultry	VA0077402	4.01	1.8 – 5.6
Tyson Farms	Glen Allen, VA	Poultry	VAN040089	4.06	2.3 – 6.5
Cargill	Wyalusing, PA	Meat	PA0111759	4.49	1.9 – 13.9
Hillshire Brands	New London, WI	Meat	WI0023094	4.91	2.1 – 9.4
Johnsonville Sausage	Sheboygan Falls, WI	Meat	WI0001759	6.25	4.4 – 9.4
Perdue Foods	Accomac, VA	Poultry	VA0003808	7.79	2.3 – 12.3

The DMR data clearly show that slaughterhouses can consistently attain pollution levels orders of magnitude less than the concentrations currently allowed under the existing ELGs. The

[75] Environmental Integrity Project, Water Pollution from Slaughterhouses (2018) [hereinafter "EIP Slaughterhouse Report"], *available at* https://www.environmentalintegrity.org/wpcontent/uploads/2018/10/Slaughterhouse_Report_Final.pdf (attached hereto as Attachment B).

[76] *Id.* at 29.

[77] Environmental Integrity Project, 2020 DMR Total Nitrogen Analysis for Large Slaughterhouses (2021) (attached hereto as Attachment C).

[78] *Id.*

[79] *See id.* for full list of slaughterhouses.

monthly average total nitrogen concentration discharged by the best-performing poultry plant was as little as 0.8 mg/L and never exceeded 3.3 mg/L that year.[80] Likewise, the monthly average total nitrogen concentration discharged by the best-performing meat plant ranged from 2.1 mg/L to 4.7 mg/L.[81] Given that most slaughterhouses discharge wastewater to waterways impaired for the same pollutants found in slaughterhouse effluent,[82] and that the industry is the largest industrial source of phosphorus water pollution and the second largest industrial source of nitrogen water pollution,[83] it is clear that the EPA should set more protective nutrient ELG limits. The DMR data provide EPA with robust and reliable information necessary to revise the ELGs.

2. EPA Has, or Can Readily Obtain, Information About the Best Available Nutrient Removal Technology Applicable to Slaughterhouses.

In addition to DMR data, information about the existence of modern, available pollution technology already in use at slaughterhouses, POTWs, and other industries is readily available to EPA. This allows the Agency to revise the ELGs without any delay.

a. Some Slaughterhouses Have Already Installed Improved Treatment Technology.

A review of slaughterhouse permit records and discharge data show how much treatment technology has improved and how other facilities nationwide can, at a minimum, adopt this technology. Wastewater treatment technologies that can achieve pollutant concentrations much lower than the existing ELGs include, among other things, Enhanced Nutrient Removal ("ENR") and Biological Nutrient Removal ("BNR").[84] BNR is not necessarily BAT, as ENR (which has been adopted by many POTWs, as discussed in greater detail in Section IV.C.2.b) can achieve even greater reductions—but BAT must clearly be at least as stringent as BNR. EPA has known about BNR technology for over 20 years.[85] The scientific literature includes descriptions of this technology applied to meat processing from at least 18 years ago.[86] Thus, these systems represent a lower boundary for a revised BAT determination.

Table 3, below, displays the level of total nitrogen in 2020 reported by four slaughterhouses that have already installed more advanced nutrient removal technology. These four slaughterhouses,

[80] *Id.*

[81] *Id.*

[82] EIP Slaughterhouse Report at 13–14.

[83] Preliminary Plan 15 at 6-2.

[84] In addition to piping effluent directly into waterways and sending it to a local POTW, slaughterhouses also dispose of wastewater by spraying it on land. Spraying wastewater on land can contaminate drinking water wells and Commenters are by no means advocating for spraying to serve as an alternative to discharging it to waterways. *See* Environmental Integrity Project, Water Pollution from Slaughterhouses, 4, 9–11, 22–24.

[85] *See, e.g.*, EPA, Wastewater Technology Fact Sheet: Sequencing Batch Reactors (1999), *available at* https://www3.epa.gov/npdes/pubs/sbr_new.pdf.

[86] *See, e.g.*, Nagalingam Thayalakumaran et al., *Biological Nutrient Removal From Meat Processing Wastewater Using a Sequencing Batch Reactor*, 47(10) Water Sci. Tech. 101 (2003).

which are by no means an exhaustive inventory of high-performing facilities, are further discussed below. To summarize:

- At least two poultry plants in Virginia currently employ BNR, which uses activated sludge and sequencing batch reactors to achieve average total nitrogen discharge concentrations of 7 mg/L or less, compared to the current total nitrogen ELG limit of 103 mg/L for poultry plants and 134 mg/L for meat plants.
- A third poultry facility in Virginia achieves comparable discharge concentrations using what appears to be a BNR treatment system.
- Meanwhile, a beef slaughterhouse in Pennsylvania is also meeting comparable discharge concentrations. Similar to the slaughterhouses in Virginia, the slaughterhouse in Pennsylvania adopted more advanced technology to treat its nitrogen discharges in order to meet requirements set forth under the Chesapeake Bay Total Maximum Daily Load program ("TMDL").

The fact that these slaughterhouses were able to implement these technologies shows that these advanced treatment systems are available to the industry to reduce its nutrient pollution.

Table 3. 2020 Monthly Average Total Nitrogen Discharge Data for Four Slaughterhouses with Nutrient Removal Technology[87]

Slaughterhouse Name	Location (City, State)	NPDES Permit No.	Annual Average Total Nitrogen Concentration (mg/L)	Total Nitrogen Concentration Ranges (mg/L)
Tyson Farms	Temperanceville, VA	VA0004049	3.38	1.8 – 4.9
George's Chicken	Edinburg, VA	VA0077402	4.01	1.8 – 5.6
Tyson Farms	Glen Allen, VA	VAN040089	4.06	2.3 – 6.5
Cargill	Wyalusing, PA	PA0111759	4.49	1.9 – 13.9

Tyson Farms in Glen Allen, Virginia

The Tyson Farms poultry slaughterhouse in Glen Allen, Virginia treats its wastewater with a "four stage Bardenpho biological nutrient removal (BNR) process followed by tertiary filtration."[88] The permit for this facility has an annual average limit on total nitrogen of 6 mg/L and a monthly average ammonia limit of 2 mg/L.[89] 2020 DMR data show that the total nitrogen

[87] *See* Attachment C: Environmental Integrity Project, 2020 DMR Total Nitrogen Analysis for Large Slaughterhouses.

[88] Va. Dep't of Envtl. Quality, VPDES Permit No. VA0004031, Permit Fact Sheet for Tyson Farms Inc., Glen Allen, Va. (Jan. 11, 2016), at 7 (attached hereto as Attachment D).

[89] *Id.* at 4.

monthly average discharge concentration has never exceeded 6.5 mg/L, and has a mean value of 4.06 mg/L.[90]

George's Chicken in Edinburg, Virginia

The George's Chicken facility in Edinburg, Virginia is a 60-year-old poultry processing plant.[91] The wastewater treatment facility for the plant has a design flow of 1.7 million gallons per day. Although the treatment facility accepts process wastewater from a nearby rendering facility and a small amount of residential sanitary wastewater, 90 percent of treated wastewater is from poultry first processing at the facility.[92] The BNR technology at George's Chicken was installed in roughly 2002, and modifications continued through at least 2016.[93] 2020 DMR data show that the total nitrogen monthly average discharge concentration has never exceeded 5.6 mg/L, and has a mean value of 4.01 mg/L.[94]

Tyson Farms in Temperanceville, Virginia

The Tyson Farms poultry slaughterhouse in Temperanceville, Virginia also appears to have a BNR treatment system,[95] a 6 mg/L annual limit on total nitrogen, and seasonal ammonia limits no higher than 2.7 mg/L. 2020 DMR data show that the total nitrogen monthly average discharge concentration has never exceeded 4.9 mg/L, and has a mean value of 3.38 mg/L.[96]

Cargill Meat Solutions in Wyalusing, Pennsylvania

Performance well below the ELGs is not limited to the poultry industry. For example, the Cargill Meat Solutions beef slaughterhouse in Wyalusing, Pennsylvania has permit limits consistent with existing ELGs,[97] but recently upgraded its treatment facility (circa 2014[98]) and now consistently discharges total nitrogen concentrations that are far lower than existing permit limits and ELGs.

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[90] *See* Attachment C: Environmental Integrity Project, 2020 DMR Total Nitrogen Analysis for Large Slaughterhouses.

[91] *See* Va. Dep't of Envtl. Quality, VPDES Permit No. VA0077402, Fact Sheet for George's Chicken, LLC (Apr. 2015), at Introduction p. 4 (attached hereto as Attachment E).

[92] *See id.* at App. C p. 5.

[93] *See id.* at Introduction p. 5.

[94] *See* Attachment C: Environmental Integrity Project, 2020 DMR Total Nitrogen Analysis for Large Slaughterhouses.

[95] *See* Va. Dep't of Envtl. Quality, VPDES Permit No. VA0004049, Permit Fact Sheet for Tyson Farms Inc., Temperanceville, Va. (Oct. 6, 2015), at 6-6 (attached hereto as Attachment F).

[96] *See* Attachment C: Environmental Integrity Project, 2020 DMR Total Nitrogen Analysis for Large Slaughterhouses.

[97] Pa. Dep't of Envtl. Protection, NPDES Permit No. PA0111759 for Cargill Meat Solutions, Inc. (Oct. 1, 2012) (attached hereto as Attachment G).

[98] A compliance schedule in the 2012 permit for Cargill shows that the facility was scheduled to complete upgrades by 2014. *See id*. at 20.

2020 DMR data show that the total nitrogen monthly average discharge concentration has never exceeded 13.9 mg/L, and has a mean value of 4.49 mg/L.[99]

Thus, EPA already has access to and can easily obtain information about improved treatment technology already installed at high-performing slaughterhouses.

b. POTWs and Other Industries Have Already Installed ENR and Other Denitrification Technology to Drastically Reduce Nutrients in Wastewater.

EPA can also readily obtain information about ENR technology utilized by POTWs and other industries to apply to revised slaughterhouse ELGs. Although the slaughterhouse examples discussed above use BNR to treat their wastewater, newer and more effective denitrification technology than BNR may serve as the technology basis for updated ELGs. EPA may identify BAT as a technology not yet in use in the industry, as "[p]rogress would be slowed if EPA were invariably limited to treatment schemes already in force at the plants which are the subject of the rulemaking."[100]

Many POTWs have reduced the amount of nutrient pollution in their wastewater using ENR technology, which is related to, but goes beyond, BNR.[101] For instance, the State of Maryland required 66 major POTWs to upgrade their treatment technologies to ENR in order to meet Chesapeake Bay TMDL targets.[102] These facilities are expected to discharge total nitrogen concentrations of *3 mg/L or less* and total phosphorus concentrations of *0.3 mg/l or less* after these upgrades are installed.[103] As of July 2021, 64 of these 66 POTWs have installed and are fully operating their ENR treatment technologies.[104] Moreover, as EPA noted in Preliminary Plan 14, the Water Environment Research Foundation has identified a combination of technologies that can achieve total nitrogen concentrations of less than 2 mg/L.[105] Other

[99] *See* Attachment C: Environmental Integrity Project, 2020 DMR Total Nitrogen Analysis for Large Slaughterhouses.

[100] *See Kennecott*, 780 F.2d at 453 (explaining that "Congress . . . asked EPA to survey related industries and current research to find technologies which might be used to decrease the discharge of pollutants.").

[101] *See, e.g.*, Iowa Dept. of Agric. & Land Stewardship et al., Nutrient Reduction Strategy (Dec. 2017), at Section 3 p. 2 (discussing "three tiers of nutrient removal" and describing "Enhance Nutrient Removal" as "BNR with chemical precipitation and granular media filtration").

[102] Md. Dept. of the Env't, *The Evolution to Enhanced Nutrient Removal*, https://mde.state md.us/ programs/Water/BayRestorationFund/Pages/evolution_enr.aspx.

[103] *Id.*

[104] Md. Dept. of the Env't, *Bay Restoration Fund Targeted Wastewater Treatment Plants* (Jul. 2021), *available at* https://mde.maryland.gov/programs/Water/BayRestorationFund/Documents/7-21-BRF-WWTP%20Update%20for%20BayStat.pdf.

[105] *See* Preliminary Plan 14 at 3-8–3-9 (showing a "Level 5" treatment level with a "treatment level objective" of less than 2 mg/L for total nitrogen).

technologies applied to slaughterhouse wastewater include, for example, membrane bioreactors[106] and aerobic granular sludge.[107]

Industries other than POTWs have also successfully utilized denitrification technology to drastically reduce their nutrient wastewater discharges. For example, Prince Specialty Products, LLC (formerly known as Prince Erachem, Inc.), a manganese ore refining facility located in Baltimore, Maryland, "re-designed [its] denitrification process by minimizing water use, and capturing, separating, filtering, evaporating, and recycling any water containing nitrogen."[108] Prior to the denitrification upgrade, the facility discharged 317,389 pounds of total nitrogen in 2011; after the installation of the denitrification system sometime in 2016, the facility reduced its total nitrogen load to 7,915 pounds that year.[109] Now with the denitrification system fully optimized, the facility further reduced its total nitrogen loads, discharging about 1,546 pounds of total nitrogen annually in 2019 and 2020 (with a mean total nitrogen monthly average of 5.26 mg/L during those two years).[110] Overall, Prince Specialty Products achieved a *99.5 percent* nitrogen load reduction by upgrading its wastewater treatment technology to denitrification.

Thus, information about modern, effective nutrient removal treatment technologies already installed by slaughterhouses, POTWs, and other industries is readily available to EPA to promptly revise the slaughterhouse ELGs.

V. Promulgating Pretreatment Standards for Indirect Discharging Slaughterhouses is Appropriate but Serves as No Excuse to Delay Revised ELGs for Direct Dischargers.

For the aforementioned reasons, EPA must act promptly to revise the slaughterhouse ELGs. To ensure that EPA issues updated ELGs without delay, Commenters recommend that the Agency bifurcate its process to revise the ELGs for direct dischargers and to promulgate pretreatment standards for indirect dischargers. Only *seven* slaughterhouses—which is a mere *0.15 percent* of the industry discharging process wastewater—are both direct and indirect dischargers, according to data gathered by EPA during the 2004 revision of the ELGs.[111] As such, separating the two processes would not inconvenience 99.85 percent of the industry.

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[106] *See, e.g.*, Levent Gürel & Hanife Büyükgüngör, *Treatment of Slaughterhouse Plant Wastewater by Using a Membrane Bioreactor*, 64(1) Water Sci. Tech. 214 (2011).

[107] *See, e.g.*, EPA, Emerging Technologies for Wastewater Treatment and In-plant Wet Weather Management (2013), at 3-38–3-40, *available at* https://www.epa.gov/sites/production/files/2019-02/documents/emerging-tech-wastewater-treatment-management.pdf.

[108] Md. Dep't of Envt., NPDES Permit No. MD0001775, Permit Fact Sheet for Prince Erachem, Inc., Baltimore, Md. (Oct. 19, 2017), at 7 (attached hereto as Attachment H)

[109] *Id.*

[110] Information based on Prince Specialty Products, LLC DMR data obtained from EPA's Enforcement and Compliance History Online ("ECHO") website (last accessed Oct. 2, 2021), *available at* https://echo.epa.gov/effluent-charts#MD0001775.

[111] As of 2014, 4,711 slaughterhouses discharge process wastewater. *See* 2004 Technical Development Document at 1-2.

To be clear, Commenters applaud EPA's decision to promulgate pretreatment standards for the industry. In EPA's most recent review of 200 indirect-discharging slaughterhouses, the Agency found that 73 percent of the POTWs receiving slaughterhouse wastewater have violated their permit limits for pollutants found in slaughterhouse effluent (including nitrogen, phosphorus, TSS, BOD, oil and grease, chloride, total residual chlorine, *E. coli*, and metals).[112] This suggests that pollutants in slaughterhouse effluent are not being adequately treated at POTWs. To limit pollution from indirect dischargers, Congress directed EPA to publish guidelines that control and prevent the discharge of "any pollutant which interferes with, passes through, or otherwise is incompatible with [POTWs]."[113] Slaughterhouse pollutants appear to fit this description, as they are likely passing through, and perhaps also interfering with, the receiving POTWs. As EPA found, of the more than 100 corresponding POTW discharge permits reviewed, only 45 percent have nitrogen limits and only 15 percent have phosphorus limits, which indicates that many POTWs receiving slaughterhouse effluent may not be removing much of the nutrient load discharged to POTWs from slaughterhouses.[114] Clearly, EPA must issue pretreatment standards to curb the pollution sent by indirect discharging slaughterhouses to POTWs.

Issuing revised ELGs for direct dischargers as soon as EPA is able would not impede the Agency's promulgation of pretreatment standards. However, waiting to release the updated ELGs until the Agency can promulgate pretreatment standards for the industry at the same time will likely postpone the effective date of the ELGs. Given that direct-discharging slaughterhouses send an estimated 16.5 million pounds of nitrogen and 2.84 million pounds of phosphorus into waterways each year,[115] such delays would perpetuate harm to communities and the environment. Therefore, Commenters urge EPA to issue updated ELGs as soon as possible without tying the release to pretreatment standards.[116]

Thank you for considering our comments.

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[112] Preliminary Plan 15 at 6-2.

[113] 33 U.S.C. § 1314(g)(1).

[114] Preliminary Plan 15 at 6-2.

[115] Preliminary Plan 14 at 3-4–3-5 figs.3-1, 3-3.

[116] Commenters also remind EPA to complete its duties under the Endangered Species Act ("ESA") before issuing a final rule. The ESA establishes that "all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this chapter." 16 U.S.C. § 1531(c)(1). To fulfill the substantive purposes of the ESA, each federal agency is required under Section 7 of the Act to engage in consultation with the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service (collectively, the "Services") to "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species . . . determined . . . to be critical." *Id.* § 1536(a)(2).

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