Comment to: The Science Advisory Board Contaminant Candidate List (CCL) 6 Augmented Drinking Water Committee (DWC)

Re: Recommendation to add mifepristone and its active metabolites to the Drinking Water Contaminant Candidate List 6

June 2026

Dear Mr. Gerrity, Ms. Mena, Ms. Weir, and Ms. Wigginton,

In response to the announcement of public meetings of the SAB Contaminant Candidate List (CCL) 6 Augmented Drinking Water Committee (DWC) as outlined in the Federal Register published on May 28, 2026,[1] and in advance of the meeting on June 29, Liberty Counsel Action submits the following comment, modified from the comment submitted in response to the Environmental Protection Agency's request for comments on the Drinking Water Contaminant Candidate List 6-Draft.

Executive Summary

Daily water contamination from the increasing use of the abortion pill protocol, mifepristone and misoprostol, threatens the Environmental Protection Agency's (EPA) mandate to safeguard our nation's water. Not only does this drug protocol create what constitutes medical and pathological waste, which is typically disposed of via toilets — arguably in violation of various states' fetal tissue disposal laws and medical waste regulations[2] — but in addition, active mifepristone metabolites are excreted after use. Conventional waste and drinking water treatment plants fail to reliably remove such pharmaceutical contamination, and mifepristone itself has been detected internationally in environmental waters.[3] In short, mifepristone and its metabolites are more than likely present in U.S. waters, and as mifepristone's primary action is to block progesterone (a vital fertility hormone), there

[1] "Public Meetings of the Science Advisory Board Contaminant Candidate List (CCL) 6 Augmented Drinking Water Committee (DWC)," Federal Register. Vol. 91, No. 102. P. 31713, May 28, 2026, https://www.federalregister.gov/documents/2026/05/28/2026-10637/public-meetings-of-the-science-advisory-board-contaminant-candidate-list-ccl-6-augmented-drinking.

[2] Guidance provided by the American Civil Liberties Union (ACLU) at the time on how state abortion restrictions would apply to the abortion pill make it clear that the ACLU (and arguably the abortion providers they wrote to) understood that certain states may not permit flushing "products of conception." See: "Do Existing State Abortion Laws Apply to Mifepristone (RU-486)?" ACLU, February 21, 2000, https://www.aclu.org/documents/do-existing-state-abortion-laws-apply-mifepristone-ru-486. For example, Florida's regulations do not permit flushing abortion by-products; for details on this, see the section entitled "Case Study: Florida," of Liberty Counsel Action's white paper, "Abortion In Our Water," 2025, available at https://lcaction.org/LCA-PDFs/AbortionInOurWater_Final01.pdf.

[3] See section titled "Mifepristone's Presence Detected in Water Bodies in Other Countries," on p. 25.

is a critical concern that Americans may be ingesting trace amounts of something designed to inhibit fertility.

Added to this, in its call for comments on the Draft Drinking Water Contaminant Candidate List 6 (CCL 6), the EPA acknowledged that pharmaceuticals in drinking water sources have been a public concern for over a decade.[4] Indeed, evidence today shows that even in trace amounts, contamination from various pharmaceuticals and endocrine-disrupting pollutants *(mifepristone is both a pharmaceutical and an endocrine disruptor)* can be detrimental to animal health and pose clear risks to human health. While occurrence tracking is needed to better understand the persistence of mifepristone under real-world conditions, mifepristone and its metabolites present a similarly great risk of harm to our ecosystem.

To that end, it was encouraging to see the inclusion of the pharmaceutical group on the draft CCL 6. Even so, there are several issues with this pharmaceutical grouping, and LCA is concerned that mifepristone may be overlooked.

First, in listing this group, the EPA made it clear that it will not necessarily lead to "regulatory decisions for the entire group;" rather, "the EPA will evaluate available scientific data on the listed groups, subgroups, and individual contaminants, as appropriate, included in the group to inform any regulatory determinations for the group, subgroup, or individual contaminants in the group."[5] Related, the EPA was informed "about the current research needs for this broad class of chemicals" by "the application of the **benchmarks** for pharmaceuticals in the CCL screening process."[6]

Hence, it seems likely that said **benchmarks** (*referring to the Human Health Benchmarks for Pharmaceuticals [HHB-Rx] in Drinking Water, "non-enforceable drinking water levels that provide information about adverse health effects from drinking water exposure to contaminants that have no drinking water standards or health advisories"*[7]) may assist EPA in prioritizing which drugs to research and potentially regulate. However, only 374 pharmaceuticals have been given benchmarks, and while the second pill in the abortion drug regimen, misoprostol, is among them, mifepristone is not.[8]

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[4] Ibid.
[5] "Drinking Water Contaminant Candidate List 6-Draft," 91 Fed. Reg. 17186; Apr. 6, 2026, https://www.federalregister.gov/documents/2026/04/06/2026-06662/drinking-water-contaminant-candidate-list-6-draft.
[6] Ibid.
[7] "Technical Support Document for the Draft Sixth Contaminant Candidate List (CCL 6) - Chemical Contaminants," United States Environmental Protection Agency, February 2026, https://www.epa.gov/system/files/documents/2026-02/draft-ccl-6-chemical-tsd-02.26.26-508.pdf.
[8] "Human Health Benchmarks for Pharmaceuticals in Drinking Water," U.S. Environmental Protection Agency, Office of Water, March 2026, https://www.epa.gov/system/files/documents/2026-03/human-health-benchmarks-for-pharmaceuticals-2026- technical-document.pdf.

There does not appear to be a logical reason for the HHB-Rx to include misoprostol and exclude mifepristone given:

1. Mifepristone actually forms active metabolites, which are primarily excreted in urine, as well as the blood and fetal tissues expelled by use of the drug, and these metabolites are more than likely in our drinking water (as detailed in the body of this comment); conversely, misoprostol is "excreted in urine as inactive metabolites."[9]
2. The half-life of misoprostol is very short, approximately 30 minutes,[10] whereas mifepristone has a relatively long half-life of 30+ hours[11] (for more on this, see the section entitled "Mifepristone and Its Metabolites Have a Long Half Life").

In other words, misoprostol is much less likely than mifepristone to pollute our drinking water from excretion, and while the drug may pollute water from pills being disposed of directly into the toilet, that applies to mifepristone as well. Furthermore, consider that misoprostol is not listed among the benchmarks as an abortifacient but rather for one of its other uses, to reduce "the risk of NSAID-induced gastric ulcers."

Why is it not listed for its use in the abortion pill protocol, and why is mifepristone not listed at all? It may be due to a lack of data: "EPA used readily available data" in compiling the HHB-Rx,[12] and there is not as much "readily available data" on mifepristone's presence in drinking water.

Yet that is all the more reason to include it on the CCL 6, as the data that is available suggests it is incredibly harmful (again, further details are in the body of the comment).

An objective observer may conclude that the abortion issue is so politically charged that it was easier to simply not address the above realities and therefore exclude mifepristone from the HHB-Rx. Such a decision, conscious or not, would align with past official action on this drug. *(Outlined further below, but in short, the abortion industry has essentially been given a free pass to not only traumatize women but also to contaminate our water with chemically aborted fetal remains.)*

In short, mifepristone's inclusion under the broadly defined "pharmaceutical group" fails to adequately highlight the urgent need for monitoring and evaluation.[13] As the body of this comment

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[9] Neal M. Davies, James Longstreth, and Fakhreddin Jamali, "Misoprostol Therapeutics Revisited," Pharmacotherapy, Vol. 21, No. 1, 2001, https://doi.org/10.1592/phco.21.1.60.34442.
[10] "Cytotec misoprostol tablets," U.S. Food and Drug Administration, February 2018, https://www.accessdata.fda.gov/drugsatfda_docs/label/2018/019268s051lbl.pdf.
[11] "Product Information, MS-2 Step," May 22, 2014, https://www.tga.gov.au/sites/default/files/auspar-mifepristone-misoprostol-141013-pi.pdf.
[12] "Fact Sheet: Human Health Benchmarks for Pharmaceuticals (HHB-Rx)," U.S. Environmental Protection Agency. Accessed June 16, 2026, https://www.epa.gov/system/files/documents/2026-03/fact-sheet-2026-human-health-benchmarks-for-pharmaceuticals.pdf.
[13] "Basic Information on the CCL and Regulatory Determination," United States Environmental Protection Agency, January 9, 2026, https://www.epa.gov/ccl/basic-information-ccl-and-regulatory-determination. See also: "SDWA

demonstrates, mifepristone's combined characteristics — its progesterone blocking action, increasing usage, and ability to generate medical waste, among others — justify treating it separately from the overly broad pharmaceuticals category containing thousands of compounds. Given it seems likely mifepristone will be excluded from EPA-directed research if it is not explicitly added to the final CCL 6, the SAB CCL 6 DWC can help advance critically needed research and regulation on this chemical compound by recommending that the EPA include mifepristone and its active metabolites on the final CCL 6 by name.

Recommendation

Given that the CCL is only developed once every five years and that contamination from chemical abortion continues to increase annually,[14] in order to promote national occurrence monitoring, obtain further health risk data, and support regulatory determinations, we believe it is vital that mifepristone and its active metabolites be added to the CCL this year. Failure to do so could delay critical occurrence monitoring and related risk assessment study. **Liberty Counsel Action (LCA) therefore recommends that as part of its response to the third charge question** (*"based on the statutory requirements, which also includes considering contaminants referred to in section 101(14) CERCLA and registered under FIFRA (SDWA 1412(B)), are there additional contaminants that should be considered for inclusion on the draft CCL 6?"*) **that the SAB CCL 6 DWC recommend to the EPA that mifepristone (and any generics), a substituted 19-nor steroid compound chemically designate as 11ß-[p-(Dimethylamino)phenyl]-17ß-hydroxy-17-(1-propynyl)estra-4,9-dien-3-one (empirical formula is C29H35NO2),[15] CAS Registry Number 84371-65-3,[16] and its active monodemethylated, didemethylated, and hydroxylated metabolites, be explicitly listed in the EPA's Final Contaminant Candidate List (CCL) 6.**

This recommendation is amply supported by peer-reviewed scientific data that indicates "potential for public health concern." To that end, we respectfully request that the committee consider the following regulatory and scientific background, analysis, and evidence demonstrating that mifepristone and its active metabolites should be placed on CCL 6 by name and, ultimately, merit regulation. Listing this pharmaceutical and its metabolites on CCL 6 is consistent with EPA's mandate and prior CCL practice.

Evaluation and Rulemaking Process," United States Environmental Protection Agency, June 17, 2025, https://www.epa.gov/sdwa/sdwa-evaluation-and-rulemaking-process.

[14] In the years since its original approval the use of the pill has steadily increased; see: Rachel K. Jones and Amy Friedrich-Karnik, "Medication Abortion Accounted for 63% of All US Abortions in 2023—An Increase from 53% in 2020," Guttmacher Institute, March 2024, https://www.guttmacher.org/2024/03/medication-abortion-accounted-63-all-us-abortions-2023-increase-53-2020.

[15] "Highlights of Prescribing Information Mifepristone Tablets," The U.S. Food and Drug Administration, Revised January 2023, https://www.fda.gov/media/164653/download.

[16] "Mifepristone," CAS, a division of the American Chemical Society, n.d. Accessed April 17, 2026, https://commonchemistry.cas.org/detail?cas_rn=84371-65-3 (CAS RN: 84371-65-3). Licensed under the Attribution-Noncommercial 4.0 International License (CC BY-NC 4.0).

Organizational Expertise

Having researched the issue extensively over the last several months, LCA has developed subject matter expertise in this area. Our team has dedicated countless hours to reviewing numerous peer-reviewed scientific articles on this topic, researching government documents, consulting with wastewater treatment experts, and more; all of which culminated in the following:

- A 98-page white paper on the chemical abortion pill protocol detailing how its original approval violated federal law and presenting evidence that it likely contaminates our water.[17]
- A detailed memorandum to the
- on specific actions the agency can take to mitigate the potential harms caused by the chemical abortion pill.[18]
- A letter to the Food and Drug Administration outlining the ways in which its most recent "major action" on the abortion drug mifepristone (approving a second generic version of it), like all its prior "major actions" on the abortion pill protocol, failed to properly adhere to environmental protection law.[19]
- Multiple meetings with congressional offices, officials within the Trump administration, officials at the U.S. Food and Drug Administration (including the Commissioner, Dr. Martin Makary), and officials within the Environmental Protection Agency, including an in-person conversation with Administrator Lee Zeldin.

And more.[20]

Background

Current Landscape

Clean, pure drinking water is a vital necessity, arguably making the EPA's role in protecting it, per the Safe Drinking Water Act (SDWA), among its most salient responsibilities. It is also a top priority of the current administration - in several major speeches and announcements, President Trump and his administrative teams have repeatedly promoted environmental policies that will advance and maintain "crystal-clean drinking water."[21] The increasing disposition of medical waste in toilets

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[17] "Abortion in Our Water: A Special Report," Liberty Counsel Action, 2025, available at https://lcaction.org/LCA-PDFs/AbortionInOurWater_Final01.pdf.

[18] "Memorandum for the Environmental Protection Agency Office of Water," Liberty Counsel Action, Fall 2025, https://abortioninourwater.org/PDFs/LCA/MemorandumtoEPAre-MifepristoneRegulations2026.pdf.

[19] Letter to the United States Food and Drug Administration from Liberty Counsel Action, Fall 2025, https://lcaction.org/PDFs/AIOW/LettertotheFDAonGenericApprovalofMifepristone_Fall2025.pdf.

[20] Liberty Counsel Action staff have also participated in numerous radio and other media interviews on this topic, as well as prepared various resources for elected officials and the general public, which are available at www.AbortionInOurWater.org.

[21] See: "Remarks by President Trump on America's Environmental Leadership," The White House, July 8, 2019, https://trumpwhitehouse.archives.gov/briefings-statements/remarks-president-trump-americas-environmental-leadership/https://trumpwhitehouse.archives.gov/briefings-statements/remarks-president-trump-americasenvironmental-leadership/, which states: "We want crystal-clean water, and that's what we're doing and that's what we're working on so hard"; "On Earth Day, We Finally Have a President Who Follows Science," The White House | Articles, April 22, 2025, https://www.whitehouse.gov/articles/2025/04/on-earth-day-we-finallyhave-a-president-who-follows-science/, which states: "Under President Donald J. Trump, America is back — leveraging environmental policies

(which can contribute to SSOs and CSOs) as a result of increased mifepristone and misoprostol use, alongside the likely presence of mifepristone and its active metabolites in our nation's drinking water, undermines these priorities.

U.S. Food and Drug Administration Oversights Hindered Proper Environmental Scrutiny of Mifepristone

Mifepristone and its active metabolites have never been properly studied for potential adverse environmental impact. First introduced into the U.S. market in 2000 after approval by the U.S. Food and Drug Administration (FDA), the abortion pill protocol's initial environmental review was not only sub-standard but also lacked legal compliance (among other things), and no further environmental review has since been completed.

Specifically, prior to its 2000 approval the FDA considered an Environmental Assessment (EA) and issued a "finding of no significant impact" (FONSI) (rather than requiring further environmental analysis via an Environmental Impact Statement (EIS)[22]). However, there are some glaring issues with the FDA's decision-making process:

1. **Lack of Objectivity.**
   The FDA's 1996 "Environmental Assessment and Finding of No Significant Impact" for Mifepristone tablets lacked clear, independent environmental analysis. Instead, its assessment and finding relied heavily on the EA prepared by the drug applicant, the

rooted in reality to promote economic growth while maintaining the standards that have afforded Americans the cleanest air and water in the world for generations;" "President Trump Signs Executive Order on Modernizing America's Water Resource Management and Water Infrastructure," Executive Office of the President Council on Environmental Quality, October 13, 2020, https://trumpwhitehouse.archives.gov/wp-content/uploads/2020/01/201013-FINAL-Press-Release-WaterEO-clean.pdf, which states: "Under the Trump Administration, Federal agencies that have primary authority for water policy have coordinated like never before, to help ensure that all Americans have access to safe drinking water, reliable rural and farm water supplies, and clean water for recreation and enjoyment;" "President Donald J. Trump is Modernizing America's Water Resource Management and Infrastructure," White House Fact Sheets, October 14, 2020, https://trumpwhitehouse.archives.gov/briefingsstatements/president-donald-j-trump-modernizing-americas-water-resource-management-infrastructure/, which states: "Modernizing management of our Nation's water infrastructure to ensure access to safe, clean, and reliable water supplies will improve the quality of life for every American"; and "Statement by President elect Donald J. Trump Announcing the Nomination of Lee Zeldin as Administrator of the Environmental Protection Agency (EPA," The American Presidency Project, November 11, 2024, https://www.presidency.ucsb.edu/documents/statement-president-elect-donald-j-trump-announcing-thenomination-lee-zeldin, in which President Trump referred to Administrator Lee Zeldin (then-nominee for Administrator of the EPA) as a "true fighter for America First policies" who "will ensure fair and swift deregulatory decisions that will be enacted in a way to unleash the power of American businesses, while at the same time maintaining the highest environmental standards, including the cleanest air and water on the planet."

[22] Patrizia A. Cavazzoni, "U.S. Food and Drug Administration to Kristan Hawkins, President and Kristi Hamrick, Chief Media & Policy Strategist, Students for Life of America," Letter, January 15, 2025, https://downloads.regulations.gov/FDA-2023-P-1528-0005/attachment_1.pdf. Note: This letter clarifies a FONSI is "a determination by a Federal agency that a proposed agency action does not require the issuance of an environmental impact statement."

Population Council (submitted as part of the overall application seeking mifepristone's approval).[23]

The Population Council is a pro-abortion organization whose founding had strong ties to the eugenics movement.[24] Any documentation prepared by this entity is inevitably going to lack objectivity, a requirement of the National Environmental Policy Act (NEPA), which makes clear that federal agencies are responsible for preparing statements on the environmental impact of "major Federal actions significantly affecting the quality of the human environment" and likewise ensuring the **objectivity** of such statements.[25] Instead of questioning the Population Council's objectivity by performing their own detailed EA, the FDA simply summarized and accepted the Population Council's EA.[26]

2. **Failure to consider the environmental fate of mifepristone's biological by-products from use (human fetal remains and related medical waste).**
   The FDA has never adequately addressed disposal pathways for the biological materials that are generated and typically flushed after use of mifepristone, nor (seemingly) considered how said materials (aborted human fetal remains and related medical waste) could impact

[23] "Environmental Assessment and Finding of No Significant Impact for NDA 20-687—Mifepristone Tablets," Food and Drug Administration Center for Drug Evaluation and Research, July 1996, https://www.accessdata.fda.gov/drugsatfda_docs/nda/2000/20687_Mifepristone_EA.pdf. According to said assessment, "[t]he product can be manufactured, used and disposed of without any expected adverse environmental effects."

[24] As outlined by Liberty Counsel, "*When the eugenics movement fell out of favor with the fall of Nazi Germany, John D. Rockefeller III in 1952 founded the Population Council as a means to still advance eugenic population control, but under different guises it still uses today such as 'reproductive health,' 'reproductive choice,' and 'family planning.' After decades of funding and researching population control programs, the Council received the patent to Mifepristone. The drug was developed by the French company Roussel-Uclaf, who later donated the rights to the drug to the Population Council after the company was unable to find a buyer. With an opportunity for an inexpensive and widespread abortifacient drug to further its mission, the Population Council facilitated clinical trials, obtained FDA approval in 2000, and identified a manufacturer. During the FDA approval process, the Population Council transferred the rights to produce and distribute Mifepristone (RU-486) to Danco Laboratories.*" See: "Abortion Pill Is a 'Tool of Modern-Day Eugenics'," Liberty Counsel, February 29, 2024, https://lc.org/newsroom/details/022924-abortion-pill-is-a-tool-of-modernday-eugenics-1. See also: Carole Novielli, "Former employee says eugenics-based Population Council and its donors are 'endemically racist'," Live Action, September 13, 2020, https://www.liveaction.org/news/eugenicspopulation-council-donors-endemically-racist.

[25] When the EA was performed, NEPA stated that, "*The procedures in this subparagraph shall not relieve the Federal official of his responsibilities for the scope, objectivity, and content of the entire statement or of any other responsibility under this chapter*." 42 U.S.C. §4332, 1995 Edition, https://www.govinfo.gov/content/pkg/USCODE-1995-title42/html/USCODE-1995-title42.htm. While said subparagraph is referring to detailed statements "for any major Federal action funded under a program of grants to States," this language nonetheless indicates Federal officials are meant to ensure the objectivity of environmental statements. For more on this, see section 1(B)(6) of Liberty Counsel Action's white paper, "Abortion in Our Water: A Special Report," 2025, available at https://lcaction.org/LCA-PDFs/AbortionInOurWater_Final01.pdf. Also of note, in 2023, NEPA was amended, making this requirement more explicit; it now states agencies shall "ensure the professional integrity, including scientific integrity, of the discussion and analysis in an environmental document." See: Office of the Law Revision Counsel, 42 U.S.C. §4332, accessed May 8, 2025, https://uscode.house.gov/view.xhtml?path=/prelim@title42/chapter55&edition=prelim.

[26] "Environmental Assessment and Finding of No Significant Impact for NDA 20-687—Mifepristone Tablets," Food and Drug Administration Center for Drug Evaluation and Research. . .

wastewater systems, a violation of both the Clean Water Act (CWA) and the National Environmental Policy Act (NEPA).

Specifically:

- Based on the Population Council's EA, the FDA "determined that there would be no significant effects on the quality of the human environment," and "there was no information that indicated that extraordinary circumstances existed that would warrant the submission of additional environmental information."[27] However, there are clearly **extraordinary circumstances,** as this was the first time a pill was introduced with the intention of forcing a woman to expel the contents of her uterus. According to a 1998 guidance on the NEPA, these circumstances should have been considered (arguably prior to the 2000 approval, and most certainly in every year a subsequent "major action" was taken on the drug protocol).[28]
- By failing to consider the "extraordinary circumstance" of aborted human fetal remains and related medical waste being expelled and therefore needing to be disposed of - in both its initial and subsequent "major actions" on the abortion drug protocol (at the very least a gross oversight if not negligence) - the FDA failed to address the possibility that "biological materials"[29] (aborted fetal remains) could contribute to pollutant loads (given they also would be contaminated with mifepristone and its active metabolites) or present challenges to wastewater

[27] Patrizia A. Cavazzoni, "U.S. Food and Drug Administration to Kristan Hawkins, President and Kristi Hamrick, Chief Media & Policy Strategist, Students for Life of America," Letter, January 15, 2025, https://downloads.regulations.gov/FDA-2023-P-1528-0005/attachment_1.pdf.

[28] To clarify what is included in extraordinary circumstances: A 1998 FDA guidance states, "[e]xtraordinary circumstance can be shown by data available either to the Agency or the applicant and can be based on the production, use, or disposal from use of the FDA-regulated article." In the case of mifepristone / Mifeprex®, a "disposal from use" of the FDA-regulated article would be necessary after the drug is used as intended (to end a pregnancy). Specifically, it requires the disposal (from use of the drug) of human remains from a pregnancy. This is, by definition, an "extraordinary circumstance" that should have been considered. Given disposition of aborted fetal remains was not properly considered prior to the drug's approval in 2000 (though, again, it should have been), this very explicit requirement also makes it inescapable that any exclusions allowing an exemption for an EA in subsequent years - the 2011, 2016, 2019, 2021, 2023, and 2025 approvals - should also not have applied. See: Environmental Assessment of Human Drug and Biologics Applications | Guidance for Industry," U.S. Department of Health and Human Services, Food and Drug Administration, Center for Drug Evaluation and Research Center for Biologics Evaluation and Research, July 1998, https://www.fda.gov/regulatory-information/search-fda-guidance-documents/environmental-assessment-human-drug-and-biologics-applications.

[29] According to the CWA, "Pollutant" is defined as "dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, **biological materials** . . . discharged into water." Fetal remains are biological materials that may be discharged into the water as a result of chemical abortion. See: Office of the Law Revision Counsel, 33 U.S.C. §1362(6), accessed May 30, 2025, https://uscode.house.gov/view.xhtml?path=/prelim@title33/chapter26&edition=prelim.

treatment systems.[30] Likewise, the FDA failed to ensure that all state regulations related to medical waste disposal would be adhered to, as required by the CWA.[31]

3. **Reliance on Estimated Introduction Concentration.**
   The EA's conclusion that mifepristone and its active metabolites would not cause environmental harm was (at least in part) based on an *estimate* of what their concentration in water would be. The estimate was never validated with real-world monitoring data, nor was there any study of the possible effect(s) mifepristone and its active metabolites may have on wildlife and humans if present in our water supply, nor analysis of whether their presence in water would violate any state water quality laws.

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[30] While the FDA may argue that the medical waste generated under the original protocol was minimal (the original 2000 approval permitted abortion up to seven weeks gestation), even at that point, women could obtain the pills and take them later. Furthermore, in all subsequent major actions taken by the FDA, particularly those that permitted abortion at 10 weeks (2016) and removed the in-person dispensing requirement (2023), the reality that medical waste was being generated and therefore needed to be disposed of properly was not considered nor addressed, though as demonstrated, said consideration was legally required. See: Center for Drug Evaluation and Research, Letter to the Population Council, September 28, 2000, https://www.accessdata.fda.gov/drugsatfda_docs/appletter/2000/20687appltr.pdf (original approval letter for the abortion pill protocol); "APPLICATION NUMBER: 020687Orig1s025 | Summary Review," Center for Drug Evaluation and Research, January 23, 2023, https://www.accessdata.fda.gov/drugsatfda_docs/summary_review/2023/020687Orig1s025SumR.pdf (summary of reasoning for removal of in-person dispensing requirement); and "Mifepristone Matters: The 'Abortion Pill' in the Balance," Center for Women's Health | Oregon Health & Science University, accessed April 19, 2026, https://www.ohsu.edu/womens-health/mifepristone-matters-abortion-pill-balance. Also of note, the 2011 REMS made this option explicit, as outlined by the American College of Obstetricians and Gynecologists, "… patients were not required to use mifepristone at the time it was dispensed in the clinician's office and could take it at home." American College of Obstetricians and Gynecologists, "Understanding the Practical Implications of the FDA's December 2021 and January 2023 Mifepristone REMS Decisions," *Advocacy and Health Policy*, https://www.acog.org/news/news-articles/2022/03/understanding-the-practical-implications-of-the-fdas-december-2021-mifepristone-rems-decision.

[31] The Clean Water Act states: "*Each department, agency, [e.g., the FDA] or instrumentality of the executive, legislative, and judicial branches of the Federal Government . . . engaged in any activity [e.g., drug approvals] resulting, or which may result, in the discharge or runoff of pollutants, and each officer, agent, or employee thereof in the performance of his official duties, shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of water pollution in the same manner, and to the same extent as any nongovernmental entity including the payment of reasonable service charges. The preceding sentence shall apply (A) to any requirement whether substantive or procedural (including any recordkeeping or reporting requirement, any requirement respecting permits and any other requirement, whatsoever), (B) to the exercise of any Federal, State, or local administrative authority, and (C) to any process and sanction, whether enforced in Federal, State, or local courts or in any other manner*." Furthermore, according to the CWA, "Pollution" is defined as "*man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.*"* Placing fetal remains in the water supply and excreting active mifepristone metabolites could alter the biological integrity of the water, constituting pollution, and therefore should have been considered against all relevant laws (to ensure pollution prevention and compliance with said laws). **"Biological integrity" is defined by the EPA as "the condition of the aquatic community inhabiting unimpaired waterbodies of a specified habitat as measured by community structure and function."* See: Office of the Law Revision Counsel, 33 U.S.C. §1362, accessed May 30, 2025, https://uscode.house.gov/view.xhtml?path=/prelim@title33/chapter26&edition=prelim; United States Environmental Protect Agency, "Biological Criteria,"1990, https://www.epa.gov/sites/default/files/2018-10/documents/national-program-guidance-surface_waters.pdf. Finally for more on this, see section 1: "Relevant Laws: The Clean Water Act, National Environmental Protection Act, and State Laws on Clean Water & Fetal Disposal" of Liberty Counsel Action's white paper, "Abortion in Our Water: A Special Report," 2025, available at https://lcaction.org/LCA-PDFs/AbortionInOurWater_Final01.pdf.

More specifically:

- The 1996 EA notes "*Expected Introduction Concentration* [EIC] *from Use,"* is less than 1 part per billion (ppb). Highlighting this, the Biden-led FDA outlined that, "*The applicant* [Population Council] *submitted a Tier 0 EA,"* which, per a 1995 EA Guidance, *"is recommended when the EIC is estimated to be less than 1 ppb because FDA 'has routinely found that drugs at concentrations less than 1 ppb have no significant effect on relevant standard test organisms, and, therefore, are unlikely to have a significant effect on the environment.'"*[32] In other words, because the *estimated* introduction concentration was low, no further study was performed.
- Even if the EIC was low, the FDA still should have considered state laws on water quality to ensure compliance with them, per the CWA.[33] Instead, the FDA (under the Clinton administration) stated the EA was submitted "in accordance with CDER [Center for Drug Evaluation and Research] guidance," which "**normally**" relieved the applicant from providing information on the "Fate of emitted substances in the environment" and "Environmental effects of released substances" (along with other further information) if the EIC was below a certain threshold.[34] However:
    - Guidance that allows the FDA to avoid complying with states' laws related to clean water, as is required by the CWA, should be considered invalid.
    - Moreover, there is nothing "**normal**" about mifepristone - this was the first drug introduced to the market that was both fatal in nature and generated aborted human fetal remains and medical waste, suggesting that even if "normally" the applicant would not need to provide further information on the environmental impact of it, **these are not normal circumstances and therefore warrant in-depth environmental study -** in addition to simple compliance with environmental law.

Current Environmental Analysis is Based on Outdated Data

While some may posit that the 1996 EA on mifepristone (based on the predicted concentration of the drug in water) was sufficient, given that in the years immediately following mifepristone's initial approval for use most abortions continued to take place surgically (in 2001, drug-induced abortions accounted for approximately 6 percent of all abortions[35]), this does not justify the FDA's failure to adhere to environmental law and ignores the issue of fetal remains, as outlined above.

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[32] Patrizia A. Cavazzoni, "U.S. Food and Drug Administration to Kristan Hawkins, President and Kristi Hamrick, Chief Media & Policy Strategist, Students for Life of America," Letter, January 15, 2025, https://downloads.regulations.gov/FDA-2023-P-1528-0005/attachment_1.pdf.

[33] See footnote 29.

[34] "Environmental Assessment and Finding of No Significant Impact for NDA 20-687—Mifepristone Tablets,"Food and Drug Administration Center for Drug Evaluation and Research . . .

[35] Rachel K. Jones and Amy Friedrich-Karnik, "Medication Abortion Accounted for 63% of All US Abortions in 2023—An Increase from 53% in 2020," Guttmacher Institute . . .

Furthermore, even if one accepts this argument, it is no longer the case: Drug-induced abortion now accounts for the vast majority of U.S. abortions. Indeed, a conservative estimate suggests that as of this writing, approximately 700,000 of the over 1 million abortions performed annually are done via the abortion pill protocol.[36] Based on trends of mifepristone usage (indicating a steady rise in drug-induced abortions since mifepristone's original approval), this is only likely to increase. Consequently, the amount of mifepristone and its active metabolites entering our water is also only likely to increase.

This shift alone - current national use being substantially higher than when the 1996 environmental assessment was conducted - justifies inclusion on CCL 6, particularly given the CCL is in part used to inform the Unregulated Contaminant Monitoring Rules (UCMR) (used to gather national occurrence data). Said another way: Mifepristone needs updated environmental exposure analysis based on empirical sampling rather than outdated modeling.[37]

(Of note: Increasing usage of mifepristone makes it a growing concern particularly given (1) conventional water treatment plants do not remove these types of contaminants, (2) mifepristone is not readily biodegradable,[38] and (3) it may persist in the environment. More on these points in the analysis section.)

Analysis

The evidence below demonstrates that mifepristone and its active monodemethylated, didemethylated, and hydroxylated metabolites qualify for placement on the final CCL 6 per the requirements of the Safe Drinking Water Act; namely, they are:

(1) "not subject to any proposed or promulgated national primary drinking water regulation,"
(2) "are known or anticipated to occur in public water systems," and
(3) "may require regulation."[39]

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[36] "Abortion in the United States Fact Sheet," Guttmacher, March 2026, https://www.guttmacher.org/fact-sheet/induced-abortion-united-states.

[37] Elena Humphreys, "Regulating Contaminants Under the Safe Drinking Water Act (SDWA)," Congress.gov, September 10, 2024, https://www.congress.gov/crs-product/R46652#fn20.

[38] "Nordic Drugs AB | Mifegyne, Tablet 200 mg," FASS, accessed February 20, 2026, https://fass.se/health/product/19920904000068. (*Under the heading "Environmental impact," one must click "see detailed environmental information." Google translate was utilized to translate the text from Swedish to English*.) Please note: While other sources (listed below) state biodegradation data is not available for mifepristone, this merely underscores our recommendation for monitoring mifepristone and researching its possible adverse effects, given more information is clearly needed. See: National Center for Biotechnology Information, "PubChem Compound Summary for CID 55245, Mifepristone," PubChem, Retrieved June 2, 2025 from https://pubchem.ncbi.nlm.nih.gov/compound/Mifepristone; Sigma-Aldrich, "Safety Data Sheet," October 16, 2025, https://www.sigmaaldrich.com/US/en/sds/sigma/m8046?srsltid=AfmBOooq4PzIEQ0H17ZS-ObGO9PAV4EjJf4mYqBfP7yaQDoUWt6Tga7R; "Chemical Safety Data Sheet MSDS / SDS | Mifepristone," ChemicalBook, November 22, 2025, https://www.chemicalbook.com/msds/mifepristone.htm.

[39] U.S.C. §300g–1, "National drinking water regulations," https://uscode.house.gov/view.xhtml?req=(title:42+section:300g-1+edition:prelim; United States Environmental

Indeed, given the risk they pose to wildlife and humans from drinking water exposure (we would argue) they *"present the greatest public health concern."*[40] Moreover, it is highly likely they qualify for a National Primary Drinking Water Regulation (NPDWR) as they meet most (if not all) of the criteria required "when making a determination to regulate."[41]

Given that ultimately the CCL is used to both help the EPA in prioritizing "research and data collection efforts" [42] and (primarily) in making "Regulatory Determinations" for five or more contaminants on the list,[43] the evidence below, demonstrating that mifepristone and its active metabolites should be placed on CCL 6, is organized by the SDWA's three criteria for determining whether a contaminant merits regulation (The "RegDet Process"[44]):

> *(1) "the contaminant may have an adverse effect on the health of persons;"*
>
> *(2) "the contaminant is known to occur or there is a substantial likelihood that the contaminant will occur in public water systems with a frequency and at levels of public health concern; and"*
>
> *(3) "in the sole judgment of the Administrator, regulation of such contaminant presents a meaningful opportunity for health risk reduction for persons served by public water systems."*[45]

Point 1: *"The contaminant may have an adverse effect on the health of persons."*

Exposure Context: Americans May Be Consuming Trace Amounts of Mifepristone and Its Metabolites

Before outlining how Americans' health may be affected, one must first demonstrate Americans may actually be consuming trace amounts of the chemical abortion pill mifepristone. The following evidence suggests this is the case:

Protection Agency, "Basic Information on the CCL and Regulatory Determination," January 9, 2026, https://www.epa.gov/ccl/basic-information-ccl-and-regulatory-determination. See also: United States Environmental Protection Agency, "SDWA Evaluation and Rulemaking Process," June 17, 2025, https://www.epa.gov/sdwa/sdwa-evaluation-and-rulemaking-process.

[40] "Basic Information on the CCL and Regulatory Determination," United States Environmental Protection Agency, January 9, 2026, https://www.epa.gov/ccl/basic-information-ccl-and-regulatory-determination.

[41] "How EPA Regulates Drinking Water Contaminants," United States Environmental Protection Agency, September 30, 2025, https://www.epa.gov/sdwa/how-epa-regulates-drinking-water-contaminants; see also: U.S.C. §300g–1, "National drinking water regulations," https://uscode.house.gov/view.xhtml?req=(title:42+section:300g-1+edition:prelim, and United States Environmental Protection Agency, "SDWA Evaluation and Rulemaking Process,". . .

[42] "How EPA Regulates Drinking Water Contaminants," United States Environmental Protection Agency. . .

[43] Ibid. (Specifically per the SDWA, the Administrator of the EPA must decide "whether or not to regulate" at least "5 contaminants included on the list;" Office of the Law Revision Counsel, 42 U.S.C. §300g-1, accessed January 22, 2026, https://uscode.house.gov/view.xhtml?req=granuleid%3AUSC-prelim-title42-chapter6A-subchapter12&saved=%7CZ3JhbnVsZWlkOlVTQy1wcmVsaW0tdGl0bGU0Mi1zZWN0aW9uMzAwZg%3D%3D%7C%7C%7C0%7Cfalse%7Cprelim&edition=prelim.)

[44] "SDWA Evaluation and Rulemaking Process," United States Environmental Protection Agency . . .

[45] Office of the Law Revision Counsel, 42 U.S.C. §300g-1, . . .

- After ingestion, mifepristone is metabolized in the body and forms active metabolites,[46] which may retain the therapeutic effect of mifepristone[47] to obstruct the vital fertility hormone progesterone.[48] According to a 1997 scientific review article:

  > *"The 3 most proximal metabolites, namely the monodemethylated, didemethylated and hydroxylated metabolites of mifepristone, all retain considerable affinity toward the human progesterone and glucocorticoid receptors; in addition, the serum concentrations of these 3 metabolites are in a similar range as those of the parent drug."*[49]

  In other words, the drug forms active compounds that retain "considerable" ability to do what the parent drug does: Block progesterone.
- Mifepristone and its active metabolites are eliminated from the body mainly via excretion (urine and feces)[50] and then pass into our wastewater systems. *(Of note, the EPA not only acknowledges that human excretion is a source of pharmaceuticals in the environment, but, per a 2019 rule on pharmaceuticals, it stated "pharmaceuticals are thought to be* ***primarily*** *entering the environment through excretion."*[51]) These substances can also enter our water systems via the medical waste and aborted human fetal remains that are often flushed down the toilet from a drug-induced abortion,[52] and from pills being flushed down the toilet.

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[46] Blake M. Autry and Roopma Wadhwa, "Mifepristone," National Library of Medicine, February 28, 2024, https://www.ncbi.nlm.nih.gov/books/NBK557612/.

[47] "Overview of Active Metabolites," Creative Proteomics, accessed December 19, 2025, https://www.creative-proteomics.com/resource/overview-of-active-metabolites.htm.

[48] Blake M. Autry and Roopma Wadhwa, "Mifepristone," . . .

[49] Oskari Heikinheimo, "Clinical Pharmacokinetics of Mifepristone," Clinical Pharmacokinetics, Vol. 33, July 1997, https://link.springer.com/article/10.2165/00003088-199733010-00002. See also: Oskari Heikinheimo, Raimo Kekkonen, and Pekka Lähteenmäki, "The pharmacokinetics of mifepristone in humans reveal insights into differential mechanisms of antiprogestin action," Contraception, December 2003, https://pubmed.ncbi.nlm.nih.gov/14698071/.

[50] N. N. Sarkar, "Mifepristone: bioavailability, pharmacokinetics and use-effectiveness," European journal of obstetrics, gynecology, and reproductive biology, Vol. 101, No. 2, March 10, 2002, https://www.ejog.org/article/S0301-2115(01)00522-X/fulltext. Specifically, this article states: "*Three metabolites of mifepristone have been identified. This compound undergoes demethylation to produce mono-demethylated (RU42633) and di-demethylated (RU42848) derivatives as well as hydroxylation of the propynyl group to yield hydroxylated metabolite (RU42698) . . . Like mifepristone, these metabolites are immunologically and biologically active and retain anti-progestational and anti-glucocorticoid properties. Elimination of mifepristone and its metabolites from the body is mainly through feces (83%) and urine (8.8%) within 6–7 days after administration of a single oral dose*." Another source states, "*[t]he major route of excretion of Mifepristone and metabolites is via the faeces (83%) with 9% being excreted in the urine*," though there is "*uncertainty about the amounts metabolites excreted*." See: "Nordic Drugs AB | Mifegyne, Tablet 200 mg," FASS, accessed January 5, 2026 at https://fass.se/health/product/19920904000068. (Note: under the heading "Environmental impact," one must click "see detailed environmental information." Google translate was utilized to translate the text from Swedish to English.)

[51] "Management Standards for Hazardous Waste Pharmaceuticals and Amendment to the P075 Listing for Nicotine | Final rule," Environmental Protection Agency Federal Register, Vol. 84, No. 36, February 22, 2019, https://www.govinfo.gov/content/pkg/FR-2019-02-22/pdf/2019-01298.pdf.

[52] N C Hill et. al., "Transplacental passage of mifepristone and its influence on maternal and fetal steroid concentrations in the second trimester of pregnancy," *BJOG: An International Journal of Obstetrics & Gynaecology,* Vol. 97, No. 5, May 1990, https://obgyn.onlinelibrary.wiley.com/doi/epdf/10.1111/j.1471-0528.1990.tb01827.x, which states, "Four hours after oral administration of 600 mg mifepristone, the drug was detected in both maternal and fetal circulations and in the amniotic fluid." See also: Paweł Szpot et. al., "Determination of Mifepristone (RU-486) and Its Metabolites in Maternal Blood Sample after Pharmacological Abortion," *Molecules*, Vol. 27, No. 21, November 5, 2022,

- The U.S. Geological Survey's (USGS) Water Science School corroborates the above, stating, "Many pharmaceutical drugs pass through the body and are excreted essentially unchanged."[53]
- Most conventional wastewater treatment plants are not designed to fully remove pharmaceutical contaminants (like mifepristone and its active metabolites).[54] The EPA has specifically detailed how, "many [pharmaceuticals] pass through [POTWs] and enter the environment because POTWs are not designed to remove pharmaceuticals," going so far as to say, "[W]hile some POTWs [Publicly Owned Treatment Works] may have implemented advanced treatment technologies, *even these technologies are not specifically designed to remove pharmaceuticals*."[55] The USGS Water Science School likewise states, "human pharmaceuticals and their metabolites often pass through sewage treatment plants."[56]
- Substantiating the above, myriad scientific studies confirm that pharmaceuticals are known to remain in source waters after treatment. For example, a 2012 study outlines:

  > *"Municipal wastewater treatment plants (WWTPs) are generally not equipped to deal with complex pharmaceuticals* ***. . . [the chemical and physical properties of] PhCs [pharmaceutical compounds] in raw wastewaters . . . vary greatly . . . with obvious repercussions on their behaviour during the treatments and consequently their removal efficiencies."*** [57] The study further underscores ***"Observed removal efficiencies vary in a wide range for the different compounds, as well as for the same substance, due to the different chemical and physical characteristics of PhCs and to operational conditions."*** (emphasis added).

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https://www.mdpi.com/1420-3049/27/21/7605, which states "… in this study metabolites of mifepristone were identified and quantified in the tested blood sample."

[53] Water Science School, "Pharmaceuticals move throughout the aquatic environment," U.S. Geological Survey, accessed October 24, 2025, https://www.usgs.gov/media/images/pharmaceuticals-move-throughout-aquatic-environment.

[54] "How Pharmaceuticals Enter the Environment," United States Environmental Protection Agency, Last modified January 22, 2026, https://www.epa.gov/household-medication-disposal/how-pharmaceuticals-enter-environment. See also: United States Environmental Protection Agency, "Primer for Municipal Wastewater Treatment Systems," September 2004, https://www.epa.gov/sites/default/files/2015-09/documents/primer.pdf. This states, *"Conventional Systems are wastewater treatment systems that have been traditionally used to collect municipal wastewater in sewers and convey it to a central facility for treatment prior to discharge to surface waters. Either* ***primary or secondary treatment may be provided in a conventional system****."* In other words, conventional WWTP / POTWs do not utilize advanced processes, which, per another source, is most of them: *"As of 2022, there were 17,544 publicly owned treatment works (POTWs) operating in the U.S. During that period, only 37.5 percent of them had advanced treatment processes in their plants*." Lucía Fernández, "Distribution of publicly owned wastewater treatment works (POTWs) in the United States as of 2022, by treatment level," Statista, November 28, 2025, https://www.statista.com/statistics/1473528/distribution-wastewater-treatment-plants-usa-by-type/. See also: United States Environmental Protection Agency, "2022 CWNS Data," accessed October 22, 2025, https://sdwis.epa.gov/ords/sfdw_pub/r/sfdw/cwns_pub/wastewater-dashboard?session=13714735319188.

[55] "How Pharmaceuticals Enter the Environment," United States Environmental Protection Agency . . .

[56] Water Science School, "Pharmaceuticals move throughout the aquatic environment," . . .

[57] P. Verlicchi et. al., "Occurrence of pharmaceutical compounds in urban wastewater: Removal, mass load and environmental risk after a secondary treatment—A review," *Science of The Total Environment,* Vol. 429, July 1 2012, https://www.sciencedirect.com/science/article/pii/S0048969712005608?via%3Dihub. Another notable point: "*This review highlights the fact that the occurrence of some PhCs in the secondary effluent discharged into surface water bodies may pose a medium–high (acute) risk to aquatic life*."

This is particularly relevant with respect to the inclusion of the pharmaceutical "group." While again said group is a helpful first step, as the properties of individual pharmaceuticals vary greatly (meaning their possible presence in tap water and adverse effects on humans will also vary), certain ones arguably require greater scrutiny and therefore merit listing by name on CCL 6 – mifepristone among them. *(For more examples of studies outlining the presence of pharmaceuticals in our water, see Appendix 2.)*

- As documented by different scientific research articles, mifepristone has been detected in water bodies in other nations.[58] Related, a 2023 study referencing *"compounds that block human progesterone receptors"* states: *"Mifepristone is the best-known and most widely used representative of this class of substances . . . Most of these compounds are only partially removed in wastewater treatment plants and so residua end up in rivers, smaller streams, or ponds that are recipients of treatment plant effluents (Chen et al., 2014; Zhang et al., 2021)."* [59]
- Most drinking water treatment plants are likewise not designed to fully remove these sorts of active contaminants. [60] For example, a joint, two-phase U.S. Geological Survey-U.S. Environmental Protection Agency study found several pharmaceuticals contaminants present in treated water, specifically detecting 26 different pharmaceuticals across 25 drinking water treatment plants.[61]

Taken together, the above bullet points lead to the logical conclusion that trace amounts of active mifepristone contaminants are more than likely reaching American drinking water. (*For further details, see point 2.)*

[58] See the sub-section under point 2: "*Mifepristone's Presence Detected in Waterbodies in Other Countries."*
[59] Michal Pech et. al., "Effects of mifepristone, a model compound with anti-progestogenic activity, on the development of African clawed frog (Xenopus laevis)," *Aquatic Toxicology*, Vol. 263, October 2023, https://www.sciencedirect.com/science/article/abs/pii/S0166445X23002965.
[60] Multiple sources confirm pharmaceuticals have been detected in U.S. drinking water; for examples, see: Saleh Taghvaeian, "Pharmaceuticals in Drinking Water," OKState.edu, March 2017, https://extension.okstate.edu/fact-sheets/pharmaceuticals-in-drinking-water.html; Susan T. Glassmeyer et. al., "Nationwide reconnaissance of contaminants of emerging concern in source and treated drinking waters of the United States," Science of the Total Environment, December 2016, https://www.sciencedirect.com/science/article/pii/S0048969716326894. This article outlines that while the amount of pharmaceuticals present is typically reduced after treatment, some nevertheless remain present at low levels, including an antibiotic, hormone, and antidepressant.
[61] Edward T. Furlong et. al., "Nationwide reconnaissance of contaminants of emerging concern in source and treated drinking waters of the United States: Pharmaceuticals," *Science of The Total Environment*, Vol. 579, February 1, 2017, https://www.sciencedirect.com/science/article/abs/pii/S0048969716305551?via%3Dihub.

How Mifepristone May Adversely Affect Human Health: Endocrine Disruption

As noted above, mifepristone acts as an endocrine disruptor[62] by blocking the fertility hormone progesterone,[63] which is vital for men,[64] women,[65] and animals.[66]

Potential Adverse Impact on the General Population

While we are not aware of any comprehensive scientific study on the effect trace amounts of mifepristone and its metabolites may have on human (or animal) health over a certain period of time (*adding to the urgent need that they be placed on CCL 6*), there is substantial evidence suggesting they are very likely to have an adverse effect.[67] Consider the following:

- Other water contaminants whose effect is similar to mifepristone; namely, potential endocrine-disrupting chemicals (EDCs), perhaps most notably perfluoroalkyl and polyfluoroalkyl substances (PFAS) (indeed, it is notable the one of the other chemical groups included on the Draft CCL 6 is a PFAS group), are coming under extreme scrutiny from the environmental community[68] as exposure to them is linked to health and development harms.[69]

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[62] Per the U.S. Department of Health National Institute of Environmental Health Sciences, "Endocrine-disrupting chemicals (EDCs) are natural or human-made chemicals that may mimic, block, or interfere with the body's hormones, which are part of the endocrine system. These chemicals are associated with a wide array of health issues." See: "Endocrine Disruptors and Your Health," National Institute of Environmental Health Sciences, March 2023, https://www.niehs.nih.gov/sites/default/files/health/materials/endocrine_disruptors_508.pdf.

[63] Mayo Clinic Staff, "Medical Abortion," Mayo Clinic, June 28, 2024, https://www.mayoclinic.org/testsprocedures/medical-abortion/about/pac-20394687; "Progesterone," You and Your Hormones, March 2021, https://www.yourhormones.info/hormones/progesterone/.

[64] "Progesterone Therapy: Why Men Need This Vital Hormone Too!" Your Wellness Center, accessed January 22, 2026, https://yourwellnesscenter.com/blog/progesterone-therapy-why-men-need-this-vital-hormone-too/.

[65] "Progesterone and Pregnancy: A Vital Connection," RESOLVE: The National Infertility Association, accessed January 22, 2026, https://resolve.org/learn/infertility-101/female-reproductive-system/progesterone-and-pregnancy/.

[66] Nicolae Tiberiu Constantin, Florin Petrișor Posastiuc and Crina Raluca Andrei, "Progesterone: An Essential Diagnostic Resource in Veterinary Medicine," From the Edited Volume *Progesterone - Basic Concepts And Emerging New Applications*, May 12, 2024,https://www.intechopen.com/chapters/1187155; Maria F. Tyree and Claire Stenhouse, "Exogenous progesterone supplementation: a strategy to enhance conceptus development in sheep and pigs?," *Reproduction and Fertility,* Vol. 6, No. 1, January 11, 2025, https://raf.bioscientifica.com/configurable/content/journals$002fraf$002f6$002f1$002fRAF-24-0092.xml.

[67] See section 4 of Liberty Counsel Action's white paper, "Abortion in Our Water: A Special Report," 2025, available at https://lcaction.org/LCAPDFs/AbortionInOurWater_Final01.pdf, "Impact of Emerging Contaminants: Pharmaceuticals and 'Forever Chemicals' in Our Environment Suggest Mifepristone Contamination Deserves Strict Scrutiny"; see also the following legislation recently introduced in Congress: "S.3460 - PFAS Accountability Act of 2025," Congress.gov, December 11, 2025, https://www.congress.gov/bill/119th-congress/senate-bill/3460/text.

[68] For example, see: "Wildlife and the environment | Endocrine disruptors," Chem Trust, accessed October 22, 2025, https://chemtrust.org/edcs-wildlife/; Manoj Kumar et. al., "Environmental Endocrine-Disrupting Chemical Exposure: Role in Non-Communicable Diseases," Frontiers in Public Health, Vol. 8, September 23, 2020, https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2020.553850/full; and Andrea C. Gore et. al., "Endocrine Disrupting Chemicals: Threats to Human Health | Pesticides, Plastics, Forever Chemicals, and Beyond," the Endocrine Society and International Pollutants Elimination Network (IPEN), February 2024, https://ipen.org/sites/default/files/documents/edc_report-2024-finalcompressed.pdf.

[69] The National Institute of Environmental Health Sciences summarizes the matter well: "the Endocrine Society and the European Society of Endocrinology have highlighted 'widespread scientific evidence' that exposure to endocrine-disrupting chemicals is harmful to human, animal, and ecological health." See: "Endocrine Disruptors and Your Health," National Institute of Environmental Health Sciences, March 2023, https://www.niehs.nih.gov/sites/default/files/health/materials/endocrine_disruptors_508.pdf

- The potential for EDCs to cause harm is demonstrated in numerous other scientific research studies and articles.[70] For example, a 2022 article in *Environmental Research* concludes:

> *"The studies summarized within this publication reinforce the concept* ***that reproduction in wildlife and humans can be significantly impacted negatively by human-made chemicals****, many of which act by altering the function of the endocrine system . . . Other ligand activated receptors* ***including progesterone****, retinoid and*

[70] Examples of scientific research studies on the harms of Endocrine Disrupting Chemicals (EDCs):

- Jimoh O. Tijani et. al., "Pharmaceuticals, endocrine disruptors, personal care products, nanomaterials and perfluorinated pollutants: a review," *Environmental Chemistry Letters,* Vol. 14, November 9, 2015, https://link.springer.com/article/10.1007/S10311-015-0537-Z. This article states, "*The presence of emerging micropollutants such as pharmaceuticals, endocrine disruptors, personal care products, nanomaterials and perfluorinated substances in the environment remains a great threat to the health and safety of humans and aquatic species. These micropollutants enter the environment via anthropogenic activities and have been detected in surface water, groundwater and even drinking water at nanogram per litre to microgram per litre concentration*." It goes on to outline, *"it has been established that continuous exposure to endocrine disruptors might result in serious transgenerational health effects on humans and wildlife, if care is not taken (Dmitruk et al. 2008; Fatoki and Opeolu 2009; Ferraz et al. 2007). It is therefore of paramount importance to understand the sources, pathways and the associated risk of exposure so as to prevent short- and long-term health implications. . . Today, several reviews and published articles have confirmed the presence of endocrine disrupting pharmaceuticals in the environment (Bu et al. 2013; Dalvie et al. 2014; Olujimi et al. 2010, 2012; Manickum and John 2014; Petrie et al. 2015; Sauvé and Desrosiers 2014)."*
- Lata Ramrakhiani, Sourja Ghosh, & Swachchha Majumdar, "Emerging Contaminants in Water and Wastewater: Remediation Perspectives and Innovations in Treatment Technologies," Springer Nature, May 25, 2022, https://www.researchgate.net/publication/360849479_Emerging_Contaminants_in_Water_and_Wastewater_Remediation_Perspectives_and_Innovations_in_Treatment_Technologies. This study states: ***"[a]ll ECs are potential hazardous materials of ecosystem affecting the quality of freshwater … Exposure of such contaminants and its bioaccumulation can induce endocrine disruption, congenital disorders, mutagenesis and carcinogenesis, etc. on human health***." (Emphasis added.) These ECs "*involve a wide variety of compounds including pharmaceuticals (veterinary and human drugs) … etc*." (emphasis added) and enter the aquatic ecosystem (where water is drawn from to supply drinking water, irrigate crops, and more) principally via "*municipal and industrial Wastewater Treatment Plants (WWTP) that treat domestic sewage, wastewater from hospital, chemical manufacturing plants, livestock and agriculture*."
- Teresa A. Donovan, "Musing Aloud," Research Gate, August 2015, https://www.researchgate.net/publication/281101224_Musing_aloud, which references other studies highlighting the adverse impacts of various estrogens (which act as EDCs); for example, "*Bhandari and colleagues (2015) found that exposure to environmentally relevant quantities of ethinyl estradiol—commonly contained in most oral contraceptive regimens—led to reduced fertility rates and increased embryo mortality in a model fish population. Moreover, adverse impacts on population health persisted in offspring three generations later*."
- William V Williams et. al., "Hormonally Active Contraceptives, Part II: Sociological, Environmental, and Economic Impact," The Linacre Quarterly, Vol. 88, No. 3, April 21, 2021, https://journals.sagepub.com/doi/10.1177/00243639211005121. This study highlights that "*Even at low concentrations (King et al. 2016, 1378–85), these compounds [synthetic progestogens and synthetic estrogens] can act as potent endocrine disruptors, affecting the growth, development, and reproduction of exposed aquatic organisms (Tyler, Jobling, and Sumpter 1998, 319–61; Larsson et al. 1999, 91–97).*"
- Concetta Pironti, et. al., "Endocrine-Disrupting Compounds: An Overview on Their Occurrence in the Aquatic Environment and Human Exposure," *Water*, May 11, 2021, https://www.mdpi.com/2073-4441/13/10/1347. This study on the wider matter of endocrine disrupting chemicals found, "*Endocrine-disrupting compounds (EDCs) as emerging contaminants have accumulated in the aquatic environment at concentration levels that have been determined to be significant to humans and animals. Several compounds belong to this family, from natural substances . . . to synthetic chemicals, especially pesticides, pharmaceuticals, and plastic-derived compounds (phthalates, bisphenol A). . . Several studies correlate human exposure to high concentrations of EDCs with serious effects such as infertility, thyroid dysfunction, early puberty, endometriosis, diabetes, and obesity."* The study also notes, "*many EDCs are not degraded enough by the available microorganisms [to remove them from the water].*"

*aryl hydrocarbon **receptors** represent molecular targets that **are uniquely sensitive to disruption by environmental chemicals.**"*[71]

As the progesterone receptor is already "sensitive to disruption by environmental chemicals" **and mifepristone works by binding to this receptor to block progesterone**,[72] if mifepristone is ingested – even in the small amounts that may be present in our water– one may logically conclude harm is likely to occur.

- In a 2008 agency document, the EPA noted that even though the "potential effects on public health and aquatic life" from pharmaceuticals "at the extremely low levels observed in drinking water and surface water" are uncertain; "concerns include hormone disruption, antibiotic resistance, and synergistic effects from the mixtures of various pharmaceutical compounds present in water."[73] The same agency document (an Interim Technical Report on the management and disposal of unused pharmaceuticals) goes on to state that, ". . . the effects of discharges of pharmaceuticals on aquatic life can include subtle and gradual effects," (emphasis added) such as disruption in hormones that may affect growth, reproduction, and development.[74]

Potential Adverse Impact on Sensitive Subpopulations

The following evidence suggests mifepristone tainted water is likely to have a particularly adverse effect on "*infants, children, [and] pregnant women" ("sensitive subgroups that comprise a meaningful portion of the general population")*.[75]

1. **Developing children, including fetuses,** may be harmed by ingestion (in the case of a fetus, ingestion by a mother) of mifepristone-tainted water – **even in small doses**. Consider that under the last two administrations, the EPA has investigated and taken action to address PFAS, which, like mifepristone, act to disrupt the endocrine system (as noted above). Specifically, an EPA "Action Plan" on PFAS published during the first Trump administration notes that, *"[d]epending on the PFAS, increased risks observed in some animal studies include developmental effects to fetuses during pregnancy and infants (e.g., low birth weight,*

[71] V.L. Marlatt et. al, "Impacts of endocrine disrupting chemicals on reproduction in wildlife and humans," Environmental Research, Vol. 208, May 15, 2022, https://www.sciencedirect.com/science/article/pii/S0013935121018855.
[72] Carolina J. Abboud, "The Development of Mifepristone for Use in Medication Abortions," Arizona State University | Embryo Project Encyclopedia, August 7, 2017, https://embryo.asu.edu/pages/development-mifepristone-use-medication-abortions; Margaret W. Beal and Kathy Simmonds, "Clinical uses of mifepristone: an update for women's health practitioners," *Journal of Midwifery & Women's Health,* Vol. 47, No. 6, November-December 2002, https://www.sciencedirect.com/science/article/abs/pii/S1526952302003318.
[73] "Health Services Industry Study Management and Disposal of Unused Pharmaceuticals (Interim Technical Report)," U.S. Environmental Protection Agency, August 2008, https://downloads.regulations.gov/EPA-HQ-OW-2006-0771-1694/content.pdf.
[74] Ibid.
[75] "Drinking Water Contaminant Candidate List 6-Draft," 91 Fed. Reg. 17186; Apr. 6, 2026, https://www.federalregister.gov/documents/2026/04/06/2026-06662/drinking-water-contaminant-candidate-list-6-draft.

altered puberty, skeletal variations)."[76] Similarly, as outlined by the Biden-era EPA, PFAS, "*can cause cancer and other illnesses*" as well as "*result in adverse health impacts*" at critical developmental stages, e.g. pregnancy or early childhood, after long-term exposure.[77] These findings have led to numerous steps being taken to combat PFAS contamination in our water **even though the amount of the substances in the water is minimal - measured in parts per trillion [ppt].**[78]

Not only does mifepristone, like PFAS, act as an endocrine disruptor; it is also potent in relatively small doses (as many pharmaceuticals are). This suggests low-dose exposure to mifepristone and its metabolites over long periods has the potential to (like low dose chronic exposure to PFAS) adversely affect sensitive subpopulations.

2. Likewise, **men and women of childbearing** age may be harmed by long-term ingestion of mifepristone and its active components, even if in trace amounts, given it is designed to block a hormone (progesterone) needed for effective reproduction (as noted above).[79]

   For example, a recent research article, "Impacts of endocrine disrupting chemicals on reproduction in wildlife and humans," highlights that exposure to endocrine disrupting chemicals (EDCs) *"is identified as a significant risk factor for decreased fertility in wildlife and humans*."[80] It goes on to outline:

   > *"[T]here is great need to better **monitor** human exposure levels to EDCs and establish how this contributes to the increasing incidences of disorders of the reproductive tract and declining fertility rate in both women and men. . . Studies over the last 50 years have shown that many different classes of chemicals can function as EDCs . . . many pharmaceuticals . . . act as EDCs."*[81]

   Given that mifepristone is a pharmaceutical known to act as an EDC, it certainly warrants inclusion in any **monitoring** efforts (like those that may come from CCL 6) that may assist in establishing how EDCs may harm human health.

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[76] "EPA's Per- and Polyfluoroalkyl Substances (PFAS) Action Plan," United States Environmental Protection Agency, February 2019, https://www.epa.gov/sites/default/files/2019 02/documents/pfas_action_plan_021319_508compliant_1.pdf.
[77] "Biden-Harris Administration Finalizes First-Ever National Drinking Water Standard to Protect 100M People from PFAS Pollution," United States Environmental Protection Agency, April 10, 2024, https://www.epa.gov/newsreleases/biden-harris-administration-finalizes-first-ever-national-drinking-water-standard.
[78] "EPA's Per- and Polyfluoroalkyl Substances (PFAS) Action Plan," United States Environmental Protection Agency, February 2019, https://www.epa.gov/sites/default/files/2019-02/documents/pfas_action_plan_021319_508compliant_1.pdf.
[79] Mayo Clinic Staff, "Medical Abortion," Mayo Clinic . . . See also footnote 81.
[80] V.L. Marlatt et. al, "Impacts of endocrine disrupting chemicals on reproduction in wildlife and humans," Environmental Research, . . .
[81] Ibid.

The same study also states, "*There is now evidence of sensitive timing of exposure, more specifically during development, which underlines the importance of identifying populations at risk from a biological point of view (i.e., pregnant women and the foetus, newborn) . . . Perhaps the ultimate factor in reducing the risks posed by EDCs will be to reduce exposure, and this might be achieved through improved public awareness and vigilant product stewardship.*"[82] Given the lack of studies on the effects of long-term, low-dose exposure to mifepristone and its metabolites, and the clear risk mifepristone poses to human health and fertility, proper "**stewardship**" of it requires (at the least) gathering more information.

Concluding Point 1

The above plausible exposure pathways and endocrine disruption activity of mifepristone and its active metabolites make clear that they may have an adverse effect on human health, satisfying criterion 1 and supporting EPA listing on CCL 6 to promote national occurrence monitoring and risk evaluation. Indeed, the environmental risks this drug and its metabolites pose to human and animal health deserve immediate attention, particularly in light of the nation's infertility crisis.[83]

Point 2: *"The contaminant is known to occur or there is a substantial likelihood that the contaminant will occur in public water systems with a frequency and at levels of public health concern."*

The likelihood that mifepristone and its metabolites are contaminating our water systems is outlined under the exposure pathways section in point 1. To summarize:

- Mifepristone and its active metabolites enter our wastewater systems via urine, feces, and the blood and related medical waste expelled by women during chemical abortions (which is also often flushed into our water systems), or via disposing of unwanted or leftover pills down the toilet. Traditional water treatment plants are not designed to remove these types of contaminants;
- Multiple studies by researchers from around the globe demonstrate there are numerous pharmaceuticals in both supply and drinking waters, [84] and pharmaceuticals have specifically been detected in U.S. drinking water;[85]
- Mifepristone specifically has been detected in global water supplies and is more than likely present in U.S. water supplies.[86]

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[82] V.L. Marlatt et. al, "Impacts of endocrine disrupting chemicals on reproduction in wildlife and humans," Environmental Research, . . .

[83] "RFK Jr Sounds Alarm on U S Health Crisis "Our Children Are in Trouble," YouTube, April 8, 2025, https://www.youtube.com/shorts/shX_OHfg1Wo; Brady E. Hamilton, Ph.D., Joyce A. Martin, M.P.H., and Michelle J.K. Osterman, M.H.S., "Vital Statistics Rapid Release | Births: Provisional Data for 2024," National Vital Statistics System, No. 38, April 2025, https://www.cdc.gov/nchs/data/vsrr/vsrr038.pdf.

[84] For example, see: Zvanaka Mazhandu and Tebogo Mashifana, "Active pharmaceutical contaminants in drinking water: myth or fact?," DARU Journal of Pharmaceutical Sciences, September 18, 2024, https://link.springer.com/article/10.1007/s40199-024-00536-9. See also further studies in Appendix 2.

[85] See footnote 68.

[86] See footnote 3.

In addition, mifepristone is not readily biodegradable and may bioaccumulate in the environment. When one combines all these factors with the reality that the use of the abortion pill protocol in abortion procedures has risen dramatically over time, with at least 63% of the over 1 million abortions that occurred in 2023 taking place via the use of pills *(a number that is likely much higher given women's access to mifepristone and misoprostol online, the lack of reporting requirements related to chemical abortion, and the upward trend in usage*[87]),[88] one can logically conclude there is "*a substantial likelihood that the contaminant … occur[s] in public water systems* ***with a frequency and at levels of public health concern,"*** as evidenced below.

Mifepristone's Synthetic Make-Up, Slow Degradation, Potential to Bioaccumulate & Long Half Life

A study on pharmaceuticals generally found that, "*[S]imilar to the perceived harmful effects of plastic waste on humans and marine life,* ***pharmaceuticals can be resistant to degradation, persistent pollutants in water bodies, lipophilic or water-soluble, and can be taken up by biota and bioaccumulate.***"[89] Based on the following evidence, mifepristone is likely to be one of these pharmaceuticals.

Mifepristone is Synthetic & Not Widely Studied in the Environment

Mifepristone is a synthetic compound,[90] which is notable given that the ability of pharmaceuticals to remain active in our water after treatment may be due (at least in part) to the fact that, according to the EPA:

> **"*synthetic compounds****, such as* ***pharmaceuticals****, are often manufactured to be resistant to metabolic transformation. As a result, some pharmaceutical compounds that are present in the influent to POTWs (treatment facilities) may pass through treatment systems at conventional POTWs and discharge to receiving waters."*[91]

Again, most POTWs (WWTP) are conventional (that is, they are not designed to fully remove active pharmaceutical contaminants).[92] Moreover, a study published in 2019 highlights that, "*There is a*

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[87] "U.S. chemical abortions as a result of telehealth rise by 25%, report finds," U.S. Senator Cindy Hyde-Smith, March 27, 2026, https://www.hydesmith.senate.gov/us-chemical-abortions-result-telehealth-rise-25-report-finds.

[88] Rachel K. Jones and Amy Friedrich-Karnik, "Medication Abortion Accounted for 63% of All US Abortions in 2023—An Increase from 53% in 2020," Guttmacher Institute . . .
Note: The year after the pill was first approved, only 6 percent of all abortions took place via mifepristone; this grew steadily over time.

[89] See: Zvanaka Mazhandu and Tebogo Mashifana, "Active pharmaceutical contaminants in drinking water: myth or fact?", . . .

[90] Blake M. Autry and Roopma Wadhwa, "Mifepristone," National Library of Medicine,. . . ; "HIGHLIGHTS OF PRESCRIBING INFORMATION | Mifepristone Tablets," The U.S. Food and Drug Administration, . . .

[91] "Management and Disposal of Unused Pharmaceuticals (Interim Technical Report) (EPA-821-R-08-013) - DCN 05519," U.S. Environmental Protection Agency, September 15, 2008, https://www.regulations.gov/document?D=EPA-HQ-OW-2006-0771-1694.

[92] "Primer for Municipal Wastewater Treatment Systems," United States Environmental Protection Agency, September 2004, https://www.epa.gov/sites/default/files/2015-09/documents/primer.pdf. Specifically, "*Conventional Systems are*

growing and global concern about synthetic organic chemicals detected in waters . . . Several of these compounds are released into rivers, lakes, and seas and exhibit bioaccumulation and endocrine disrupting activity, with a consequent alteration of the reproductive capacity of many aquatic species."[93] This same study outlines that, *"Among the most active endocrine disruptors found in the aquatic environment, there are natural and synthetic steroid hormones"* – of note, mifepristone is a synthetic steroid that acts as an antiprogestin [94] (also referred to as an antiprogesterone[95]) - ***"but relatively little is known about the chemicals that interact with the progesterone pathway*** [like mifepristone]."[96]

At the very least this suggests more study on the progesterone-blocking effects of mifepristone in the environment is warranted, and indeed, further evidence below suggests that it is highly probable that mifepristone is among those synthetic chemicals that can **alter the "reproductive capacity" of wildlife – and likely humans**.

Mifepristone is Slow to Biodegrade

Adding to concerns that mifepristone and its active metabolites enter our water post- treatment at conventional WWTP, an aerobic biodegradation study in water found mifepristone is not readily

wastewater treatment systems that have been traditionally used to collect municipal wastewater in sewers and convey it to a central facility for treatment prior to discharge to surface waters. Either primary or secondary treatment may be provided in a conventional system." Per another source, "*As of 2022, there were 17,544 publicly owned treatment works (POTWs) operating in the U.S. During that period, only 37.5 percent of them had advanced treatment processes in their plants. Advanced treatment aims to reduce or eliminate impurities below what is attainable through more conventional secondary treatment, for example, ozone treatment, membrane bioreactors, and ultraviolet processes*." Lucía Fernández, "Distribution of publicly owned wastewater treatment works (POTWs) in the United States as of 2022, by treatment level," Statista, November 28, 2025, https://www.statista.com/statistics/1473528/distribution-wastewater-treatment-plants-usa-by-type/.

[93] Adele Fabbrocini et. al., "Mifepristone affects fertility and development in the sea urchin Paracentrotus lividus," *Molecular Reproduction and Development*, January 13, 2019, https://onlinelibrary.wiley.com/doi/full/10.1002/mrd.23112?saml_referrer.

[94] Louisa Laue et. al., "The antiglucocorticoid and antiprogestin steroid RU 486 suppresses the adrenocorticotropin response to ovine corticotropin releasing hormone in man," *The Journal of Clinical Endocrinology & Metabolism*, Vol. 66, No. 2, February 1, 1988, https://pubmed.ncbi.nlm.nih.gov/2828406/. See also: "Antiprogestin," Science Direct, accessed January 22, 2026, https://www.sciencedirect.com/topics/chemistry/antiprogestin; Blake M. Autry and Roopma Wadhwa, "Mifepristone," National Library of Medicine, . ..; "Mifepristone," DrugBank, updated February 6, 2026, https://go.drugbank.com/drugs/DB00834.

[95] National Library of Medicine | National Center for Biotechnology Information, "Compound | Mifepristone," PubChem, accessed January 22, 2026, https://pubchem.ncbi.nlm.nih.gov/compound/Mifepristone#section=Drug-Indication.

[96] Adele Fabbrocini et. al., "Mifepristone affects fertility and development in the sea urchin Paracentrotus lividus," *Molecular Reproduction and Development* . . .

biodegradable; rather, mifepristone "can be considered as slowly degraded in the environment"[97] (*other sources note biodegradation data is not available for mifepristone*[98]).

Also of note, substances similar to mifepristone, the synthetic estrogens 17α-Ethinylestradiol (EE2) and mestranol (MeEE2) (*as outlined above, mifepristone is a synthetic antiprogesterone/antiprogestin*)[99], have been found by the Minnesota Department of Health (MN DHS) to be present "in some Minnesota surface waters at or above concentrations that may be harmful to aquatic life based on the scientific literature."[100] The MN DHS specifically found that **while EE2 "*can* degrade in the environment, there is a *constant replenishment from wastewater treatment plants***" (emphasis added).[101] Related, a study on the "Occurrence of pharmaceutical compounds in urban wastewater," outlines that numerous pharmaceutical compounds [PhCs] "have been found in river biota, some at high levels . . . thereby evidencing the risk that **environmental concentrations of PhCs can be higher than their predicted no-effect concentrations**." [102] This is especially notable given the FDA's review of the Population Council's Environmental Assessment on mifepristone (detailed in the background section) did not actually study whether it could cause harm but rather predicted (estimated), based on a calculation, that its concentration in water would be minimal.

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[97] "Nordic Drugs AB | Mifegyne, Tablet 200 mg," FASS . . .
This environmental impact analysis also states, *"In an aerobic biodegradation study (28 days) in water Mifepristone was not considered as readily biodegradable*."
Note: Critics may highlight that the same Swedish source also states, *"mifepristone is not classified as a persistent compound*," arguing that mifepristone's eventual biodegradation (even if slow) renders it harmless. However, stating this conclusively would be a misinterpretation. Consider, for example, a 2024 study in South Korea which found that though most pharmaceuticals *"are not highly persistent, continuous addition of the parent PPCPs [pharmaceuticals and personal care products] and their metabolites to the environment in small notable amounts, has led to their being considered as 'pseudo-persistent'*," and, given *"they are biologically active even at low concentrations . . . their presence in treated drinking water may pose a significant threat to the drinking water quality."* See: Kimberly Etombi Muambo et. al., "Pharmaceuticals in raw and treated water from drinking water treatment plants nationwide: Insights into their sources and exposure risk assessment," Water Research X, Vol. 24, September 1, 2024, https://www.sciencedirect.com/science/article/pii/S258991472400046X; see also Manvendra Patel, et. al., "Pharmaceuticals of Emerging Concern in Aquatic Systems: Chemistry, Occurrence, Effects, and Removal Methods," Chemical Reviews, Vo. 119, March 4, 2019, https://pubs.acs.org/doi/10.1021/acs.chemrev.8b00299, which states, "*PPCPs are not all persistent, but continuous release of many to the environment makes these compounds 'pseudopersistent'. Pseudopersistent pharmaceuticals are likely to exhibit greater environmental persistence than other contaminants like pesticides, because they are continually replenished . . .*" Also of note, "*despite the global increase in the manufacture, consumption, and environmental discharge of [pharmaceuticals and personal care products or, PPCPs], for a vast majority, there has been no environmental regulations*," including for the lethal mifepristone.
[98] See footnote 36.
[99] National Library of Medicine | National Center for Biotechnology Information, "Compound | Mifepristone," PubChem . . .
[100] "17α-Ethinylestradioland Mestranol and Drinking Water," Minnesota Department of Health, September 2016, https://www.health.state.mn.us/communities/environment/risk/docs/guidance/gw/mestraethinyleinfo.pdf.
[101] Ibid.
[102] See: National Library of Medicine | National Center for Biotechnology Information, "PubChem Compound Summary for CID 55245, Mifepristone," PubChem, Retrieved January 5, 2026 from https://pubchem.ncbi.nlm.nih.gov/compound/Mifepristone.

Mifepristone and its Metabolites Have a Long Half Life

Various sources confirm mifepristone has a long half-life[103] of approximately 25-38 hours.[104] Its mean terminal half-life (after multiples doses) is reported to be 2 to 4 days, and its metabolites also have a long half-life.[105] (Of note, half-life, biological half-life, plasma half-life, and terminal half-life are related terms.[106]) As long half-lives are "directly correlated with a higher potential for bioaccumulation and, consequently, a greater risk of biomagnification,"[107] monitoring and further study of these compounds is warranted.

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[103] Jericho Hallare and Valerie Gerriets, "Elimination Half-Life of Drugs," *StatPearls,* May 3, 2025, https://www.ncbi.nlm.nih.gov/books/NBK554498/.

[104] The half-life refers to "the length of time until "50% of the initial drug amount is removed from the body." See: Oskari Heikinheimo, "Clinical Pharmacokinetics of Mifepristone," Clinical Pharmacokinetics, Vol. 33, July 1997, https://link.springer.com/article/10.2165/00003088-199733010-00002, which states "The pharmacokinetics of mifepristone are characterised by rapid absorption, a long half-life of 25 to 30 hours and micromolar serum concentrations following ingestion of doses currently in clinical use." See also: "PRODUCT INFORMATION - MS-2 Step," May 22, 2014, https://www.tga.gov.au/sites/default/files/auspar-mifepristone-misoprostol-141013-pi.pdf, which states "The half-life of mifepristone is 36.5 to 38.3 hours." Also of note, "In terms of medical literature, Half-life is vividly describing the time that is taken by the plasma concentration of the drug substance to become half during the circulation in the blood going through various organs of the body (Smith, Beaumont, Maurer, & Di, 2018)." See: Khan, Rana Muhammad Awais, Umair-ul-Hassan, and Shafiq-ur-Rehman. 2018. "An Updated Review on Biological Half-Life & Volume of Distribution." *Global Pharmaceutical Sciences Review*, Vol. 3, No. 1, 2018, https://www.humapub.com/admin/alljournals/gpsr/papers/UgfF65XDtl.pdf.

[105] Borje Darpo et. al., "Assessment of the cardiac safety and pharmacokinetics of a short course, twice daily dose of orally-administered mifepristone in healthy male subjects," *Cardiology Journal*, Volume 20, No. 2, February 4, 2013, https://journals.viamedica.pl/cardiology_journal/article/download/CJ.2013.0028/24929.

[106] Specifically,

- "The biological half-life ($T_{1/2}$) is typically defined as the time required for the concentration of therapeutic agents in the body or plasma to fall by half."
- "Plasma half-life is the amount of time required for 50% of a drug's concentration to disappear from plasma."
- "Terminal plasma half-life is the time required to divide the plasma concentration by two after reaching pseudo-equilibrium, and not the time required to eliminate half the administered dose. When the process of absorption is not a limiting factor, half-life is a hybrid parameter controlled by plasma clearance and extent of distribution. In contrast, when the process of absorption is a limiting factor, the terminal half-life reflects rate and extent of absorption and not the elimination process (flip-flop pharmacokinetics). The terminal half-life is especially relevant to multiple dosing regimens, because it controls the degree of drug accumulation, concentration fluctuations and the time taken to reach equilibrium."

The plasma half-life of mifepristone is also notable; it "has been found to range between 24 and 48 h . . . When compared to other steroids, which have plasma half-lives that range from minutes (progesterone) to 3–5 h, RU 486 exhibits an unusual lengthy plasma half-life." See: Tlou A. Makwakwa, Dineo E. Moema, and Titus A. M. Msagati, "Multi-criteria decision analysis: technique for order of preference by similarity to ideal solution for selecting greener analytical method in the determination of mifepristone in environmental water samples*," Environmental Science and Pollution Research*, Vol. 31, April 5, 2024, https://link.springer.com/article/10.1007/s11356-024-32961-3; Yoo-Seong Jeong and William J Jusko, "Determinants of Biological Half-Lives and Terminal Slopes in Physiologically Based Pharmacokinetic Systems: Assessment of Limiting Conditions," The AAPS Journal, Vol. 24, August 30, 2022, https://link.springer.com/article/10.1208/s12248-022-00739-5; P L Toutain and A Bousquet-Mélou, "Plasma terminal half-life," Journal of Veterinary Pharmacology and Therapeutics, December 2004, https://pubmed.ncbi.nlm.nih.gov/15601438/; Claudia E. Reusch, *Canine and Feline Endocrinology*, Chapter entitled "Glucocorticoid Therapy ," 2015, accessed at https://www.sciencedirect.com/topics/immunology-and-microbiology/plasma-half-life.

[107] "How Does the Half-Life of a Chemical in an Organism Relate to Its Potential for Bioaccumulation?," *Sustainability Directory,* November 26, 2025, https://pollution.sustainability-directory.com/learn/how-does-the-half-life-of-a-chemical-in-an-organism-relate-to-its-potential-for-bioaccumulation/.

Mifepristone's Potential to Bioaccumulate

Given that relatively little is known *"about the chemicals that interact with the progesterone pathway,"*[108] and that per the above, mifepristone and its metabolites have a long half-life and evidence suggests it is - like EE2 - continually entering our water supply, it is logical to conclude there is a potential for mifepristone and its active metabolites to bioconcentrate in aquatic organisms and bioaccumulate.[109]

Mifepristone's Presence Detected in Water Bodies in Other Countries

In addition to the above circumstantial evidence demonstrating the extreme likelihood mifepristone and its metabolites are contaminating U.S. water supplies, the following scientific studies establish that mifepristone has been detected in other developed countries:

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[108] Adele Fabbrocini et. al., "Mifepristone affects fertility and development in the sea urchin Paracentrotus lividus," *Molecular Reproduction and Development*. . .

[109] Note: While those critical of concerns related to mifepristone in the environment may point out that the previously referenced Swedish source states, *"Mifepristone has low potential for bioaccumulation,"* based in part on *"the estimated bioconcentration factors derived from the Mifepristone bioaccumulation study in fish,"* lack of consensus on the matter alongside other pertinent information suggests there is still need for further study: The National Center for Biotechnology Information states that mifepristone's "potential for bioconcentration in aquatic organisms is very high," based on its estimated bioconcentration factor (BCF) of 2,800 (BCF "describes the readiness of chemicals to concentrate in organisms when the compounds are present in the environment"). The BCF serves as key indicator in relation to the potential for bioaccumulation. Another source likewise states, "An estimated BCF of 2,800 suggests potential for bioconcentration in aquatic organisms is very high." See: National Center for Biotechnology Information, "PubChem Compound Summary for CID 55245, Mifepristone," PubChem, Retrieved June 2, 2025 from https://pubchem.ncbi.nlm.nih.gov/compound/Mifepristone and "Material Safety Data Sheet," TCI America, accessed January 22, 2026, https://www.zoro.com/static/cms/enhanced_pdf/ZQ_7nDiliq.PDF. It may also be helpful to note that, as outlined by the EPA in a 2020 document entitled *"Fish Bioconcentration Data Requirement: Guidance for Selection of Number of Treatment Concentrations,": "While OPP has not established a BCF value of regulatory concern per se, it has used a BCF of 1,000 as a point of departure for devoting additional resources to evaluate bioaccumulation risks for a pesticide. ... a BCF value of 1,000 has been suggested by a variety of sources to denote chemicals warranting consideration for bioaccumulation potential*." See: "Fish Bioconcentration Data Requirement: Guidance for Selection of Number of Treatment Concentrations," Office of Pesticide Programs | Office of Chemical Safety and Pollution Prevention U.S. Environmental Protection Agency, July 15, 2020, https://www.epa.gov/sites/default/files/2020-07/documents/bcf-study-july-15-2020.pdf. Similarly, another sources states: "a substance is considered to be not bioaccumulative if it has a BCF less than 1000, bioaccumulative if it has a BCF from 1000–5000 and very bioaccumulative if it has a BCF greater than 5,000." See "Bio-accumulation," ChemSafetyPro, February 1, 2016, https://www.chemsafetypro.com/Topics/CRA/Bioconcentration_Factor_BCF.html. See also: Marjan Vračko, "Mathematical (Structural) Descriptors in QSAR: Applications in Drug Design and Environmental Toxicology," Advances in Mathematical Chemistry and Applications, 2015, accessed January 5, 2026, at https://www.sciencedirect.com/topics/chemistry/bioconcentration-factor; Maria I Petoumenou et. al., "Comparison between bioconcentration factor (BCF) data provided by industry to the European Chemicals Agency (ECHA) and data derived from QSAR models," *Environmental Research,* Vol. 142, October 2015, https://www.sciencedirect.com/science/article/abs/pii/S0013935115300529?via%3Dihub; "Aquatic Bioconcentration/Bioaccumulation," The Joint Research Centre: EU Science Hub, accessed January 22, 2026, https://joint-research-centre.ec.europa.eu/projects-and-activities/reference-and-measurement/european-union-reference-laboratories/eu-reference-laboratory-alternatives-animal-testing-eurl-ecvam/alternative-methods-toxicity-testing/validated-test-methods-health-effects/aquatic_en; P. Verlicchi et. al., "Occurrence of pharmaceutical compounds in urban wastewater: Removal, mass load and environmental risk after a secondary treatment—A review," *Science of The Total Environment,* . . .

- A 2010 scientific study outlines that mifepristone has been detected in both hospital wastewaters and wastewater treatment plant effluent in China.[110]
- A 2014 scientific study detected mifepristone in "Swiss rivers and wastewaters," with the highest detection being 17 ng/L in hospital wastewaters.[111]
- A 2024 scientific study on analytical methods used to detect mifepristone in water summarizes other research on the same and succinctly presents the threat of mifepristone:

  *"**Mifepristone residues in the aquatic environment have recently grown to be one of the most alarming public health concerns. Mifepristone has the potential to be hazardous to aquatic's life and humans, and it has been linked to the fast growth of endocrine disruptors in the environment . . . Mifepristone is widely distributed in the environment,** and several studies that have been published using various analytical techniques demonstrate the ongoing interest in and intense level of research effort on this compound's presence in the environment."*[112]

Related, a 2023 study (referenced previously) outlines that, "*[V]ery high anti-progestogenic activities (up to 121 µg/L mifepristone equivalents (EQs)) were detected in surface waters in China (Rao et al., 2014). Anti-progestogenic activities as high as 32 µg/L mifepristone EQs were also reported in Australian surface waters (Scott et al., 2010), namely, in samples from industrial (50 %) and residential (23 %) areas, downstream of wastewater treatment plants (13 %), and in agricultural regions (6 %).*"[113] If mifepristone equivalents are in water, it is highly likely mifepristone itself also is.

Mifepristone's Threat to the Aquatic Environment

Adding to the above, according to a 2019 study, mifepristone has been reported in fresh and saltwater, "representing a danger for aquatic species."[114] Indeed, as it pertains to risks to aquatic

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[110] Xianjun Liu et. al., "Analysis of hormone antagonists in clinical and municipal wastewater by isotopic dilution liquid chromatography tandem mass spectrometry," *Analytical and Bioanalytical Chemistry*, Vol. 396, No. 8, March 1, 2010, https://research.ebsco.com/c/r3w5i4/viewer/pdf/gmrego5wyz?route=details. This study states, mifepristone ". . . *was found in 17 samples [of hospital effluent] with a maximum value of 195 ng/L."* This same study further notes mifepristone was found in *"all the influent sewage samples"* and was likewise *"identified in the effluent"* (at .70 and .75 n/L).

[111] Adrian A. Ammann, et. al., "LC-MS/MS determination of potential endocrine disruptors of cortico signalling in rivers and wastewaters," *Analytical and Bioanalytical Chemistry*, Vol. 406, October 7, 2014, https://link.springer.com/article/10.1007/s00216-014-8206-9#Tab5, Table 4 (https://link.springer.com/article/10.1007/s00216-014-8206-9/tables/4).

[112] Tlou A. Makwakwa, Dineo E. Moema, and Titus A. M. Msagati, "Multi-criteria decision analysis: technique for order of preference by similarity to ideal solution for selecting greener analytical method in the determination of mifepristone in environmental water samples*," Environmental Science and Pollution Research*, Vol. 31, April 5, 2024, https://link.springer.com/article/10.1007/s11356-024-32961-3; also available at https://pmc.ncbi.nlm.nih.gov/articles/PMC11058867/.

[113] Michal Pech et. al., "Effects of mifepristone, a model compound with anti-progestogenic activity, on the development of African clawed frog (Xenopus laevis)," *Aquatic Toxicology,* Vol. 263, October 2023, https://www.sciencedirect.com/science/article/pii/S0166445X23002965#bib0047.

[114] Adele Fabbrocini et. al., "Mifepristone affects fertility and development in the sea urchin Paracentrotus lividus," *Molecular Reproduction and Development*, Vol. 86, No. 10., January 13, 2019, https://pubmed.ncbi.nlm.nih.gov/30637836/.

life, several studies demonstrate that exposure to certain levels of mifepristone can be harmful to aquatic species:

- The aforementioned 2019 study found mifepristone exposure "caused a decrease in fertility and embryo development" in female sea urchins, specifically reducing the percent of normally developed larvae.[115]
- Another 2019 study on the effects mifepristone on Nile tilapia found strong indication that "long-term exposure of RU486 [mifepristone] resulted in sex reversal of XX female fish."[116]
- A 2023 study on the African clawed frog found mifepristone-exposed frogs had an increased expression of progesterone receptors; additionally, "esrβ and lh mRNA expression was up-regulated in the brain–pituitary complex of exposed frogs. All these changes could lead to unpredictable disruption of reproduction and reproductive behavior later in adulthood."[117] (Note: this study states that the concentrations tested are "environmentally relevant" given "*Three nominal concentrations of mifepristone were used in the experiment: 2, 22, and 215 ng* L^{-1}*. . . anti-progestogenic activity expressed in mifepristone equivalents is found in aquatic environments within a similar range or even higher.")* The study concluded that further research on adult frog reproduction was required.

While the levels of mifepristone administered in the studies are not necessarily all equivalent to the levels of mifepristone present in the environment, given, as repeatedly noted, in the U.S. it is not clear what those levels are, the above studies demonstrate that mifepristone exposure may cause harm to wildlife over time.

More on Mifepristone's Threat to Human Health and Fertility

The likelihood that ingestion of trace amounts mifepristone and its metabolites over time may harm human health is outlined under the section "How Mifepristone May Adversely Affect Human Health," in point 1. To summarize:

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[115] Ibid. Note: "The effects of mifepristone on the sea urchin P. lividus reproductive performance were evaluated by both acute . . . and chronic exposure." Specifically, "During the acute exposure, six adult sea urchins . . . were injected through the oral cavity with 5 μg (dissolved in ethanol) of mifepristone on the first and the third day;" and "In the chronic exposure, 10 sea urchins were exposed for 6 weeks in a recirculating rearing system, at a nominal seawater concentration of 100 μg/l of mifepristone (dissolved in ethanol). . . . The mifepristone concentration used in acute exposure was calculated taking into consideration that 10 mg of mifepristone proved to be an effective dose in women (Gemzell-Danielsson & Marions, **2004**) and that the mean weight of the sea urchins was around 40 g. **The mifepristone concentration used in chronic exposure was calculated considering that the concentration of mifepristone in water decreases over time** (Blüthgen et al., **2013**) and that under the experimental conditions used here mifepristone concentration decreased by 60% after 3 days in water." As a result "in females after the oral mifepristone administration, even though a low percentage of fertilized eggs was found (< 10%), no NPL were obtained. Similarly, after mifepristone chronic exposure only about 30% of eggs were successfully fertilized and developed in normal plutei larvae."

[116] Jing Cai, Lu Li, Lingyun Song, Lang Xie, Feng Luo, Shaohua Sun, Tapas Chakraborty, Linyan Zhou, and Deshou Wang, "Effects of long term antiprogestine mifepristone (RU486) exposure on sexually dimorphic lncRNA expression and gonadal masculinization in Nile tilapia (Oreochromis niloticus)," Aquatic Toxicology, Vol. 215, October 2019, https://www.sciencedirect.com/science/article/abs/pii/S0166445X19305004?via%3Dihub.

[117] Michal Pech et. al., "Effects of mifepristone, a model compound with anti-progestogenic activity, on the development of African clawed frog (Xenopus laevis)," *Aquatic Toxicology,* Vol. 263, October 2023, https://www.sciencedirect.com/science/article/pii/S0166445X23002965#bib0047.

- Active mifepristone contaminants are designed to disrupt natural hormonal processes by blocking a vital fertility hormone, thereby adversely affecting fertility (among other things),
- These contaminants have never been comprehensively studied to determine the potential harm they may be causing to wildlife and humans[118] —particularly in children and adults of childbearing age,[119] and particularly at levels that are likely occurring in the environment.

Furthermore of note, "[*M]ifepristone should be considered toxic according to the PBT [Persistence, Bioaccumulation, Toxicity] criteria*" and more specifically outlined it is "*classified as potentially toxic for reproduction (category 1) according to the CLP Regulation EC No 1272/2008.*"[120] Related, in the "Serious Warnings and Precautions" section of a product information document on the drug it states: "*[P]atients should be counselled that once the treatment is started, there are risks of embryotoxicity if the pregnancy is not terminated. Both mifepristone and misoprostol are embryotoxic and have been associated with fetal abnormalities.*"[121]

Based on the above it is clear mifepristone and its metabolites may, over time, have harmful impacts on both aquatic species and humans consuming trace amounts of them.

Concluding Point 2

The above points highlight the lack of consensus in the available scientific literature. Indeed, uncertainty and lack of consensus in the very limited data available on mifepristone's environmental impacts is one of the primary reasons LCA is calling for mifepristone to be placed on CCL 6, as, though the threat of harm is clear, U.S. water supplies have never been comprehensively monitored or tested to determine the amount of contamination present from mifepristone and its active metabolites. Furthermore, as mifepristone is constantly being replenished in the environment from wastewater treatment plants and is more than likely *slowly degraded* in the environment (*as noted, while some sources state this data is not available, those that do have it suggest it is slow*), one can conclude that its persistent presence in the environment is highly probable. All of this underscores the fact that there is a "substantial likelihood" mifepristone "occur[s] in public water systems with a

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[118] Ojima Zechariah Wada and David Bamidele Olawade, "Recent occurrence of pharmaceuticals in freshwater, emerging treatment technologies, and future considerations: A review," . . . see also Manvendra Patel et. al., "Pharmaceuticals of Emerging Concern in Aquatic Systems: Chemistry, Occurrence, Effects, and Removal Methods," . . .

[119] "The MAHA Report | Make Our Children Healthy Again Assessment," The White House, accessed January 5, 2026, https://www.whitehouse.gov/wp-content/uploads/2025/05/WH-The-MAHA-Report-Assessment.pdf.

[120] "Nordic Drugs AB | Mifegyne, Tablet 200 mg," FASS. . .
See also "Regulation (EC) No 1272/2008 - classification, labelling and packaging of substances and mixtures (CLP)," *European Agency for Safety and Health at Work,* updated March 14, 2024, https://osha.europa.eu/en/legislation/directives/regulation-ec-no-1272-2008-classification-labelling-and-packaging-of-substances-and-mixtures, which states "The CLP Regulation establishes uniform requirements for the classification, labelling and packaging of chemical substances and mixtures, with the aim of ensuring a high level of protection of human health and the environment, as well as the free movement of substances, mixtures and articles."

[121] See: "PRODUCT MONOGRAPH INCLUDING PATIENT MEDICATION INFORMATION | MIFEGYMISO | Mifepristone tablet 200 mg | Progesterone receptor modulator and Misoprostol tablets 200 mcg | Prostaglandin," Revised October 21, 2016, https://pdf.hres.ca/dpd_pm/00036826.PDF. (See also: https://pdf.hres.ca/dpd_pm/00070528.PDF.)

frequency and at levels of public health concern." Placing mifepristone on CCL 6 would ideally lead to collecting further evidence to assist in meeting this criterion.

Point 3: *"In the sole judgment of the Administrator, regulation of such contaminant presents a meaningful opportunity for health risk reduction for persons served by public water systems."*

LCA appeals to Administrator Zeldin to consider the above evidence that placing mifepristone and its metabolites on CCL 6 presents a "meaningful opportunity" for reducing the risk posed by mifepristone and its metabolites. In addition, we would also like to invite the Administrator to consider the following:

- Mifepristone is intentionally lethal in nature and generates pathological waste, distinguishing it from all other FDA-approved pharmaceuticals. This alone suggests it merits a heightened level of scrutiny.
- Ensuring mifepristone and its metabolites are placed on the final CCL 6 would serve as a vital first step to rectifying the FDA's historic oversight in failing to do a proper environmental assessment.
- Though causation cannot be demonstrated yet (given, again, comprehensive study on the matter has never been conducted), the correlation between the increasing use of this pill — now accounting for approximately 70% of the over 1 million abortions that occur annually[122] — and increasing infertility rates in the U.S. is alarming.[123] Indeed, infertility now affects 1 in 6 individuals.[124] This begs the question: In the midst of what a leading government official has termed an "infertility crisis,"[125] are American men and women drinking trace amounts of a chemical substance that blocks a vital fertility hormone? Further study is urgently needed to establish whether there is causation.

While at a minimum mifepristone and its metabolites merit placement on CCL 6, given the primary purpose of the CCL is to determine whether to actually regulate contaminants, LCA also urges the immediate solicitation of independent, gold-standard scientific study to determine whether any or prolonged exposure to mifepristone and its active metabolites, even in trace (PPT) levels, effectively

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[122] We know as of 2023, it is at least 63 percent, but it is likely much higher due to the continual increase of chemical abortion year after year as well as the lack of reporting requirements. See: Rachel K. Jones and Amy Friedrich-Karnik, "Medication Abortion Accounted for 63% of All US Abortions in 2023—An Increase from 53% in 2020," Guttmacher Institute . . . See also, Ingrid Skop, M.D., "Fact Sheet: Deficiencies Affecting U.S. Abortion Data Collection and Application," Charlotte Lozier Institute, July 24, 2025, https://lozierinstitute.org/fact-sheet-deficienciesaffecting-u-s-abortion-data-collection-and-application/, and "Abortion pills by mail in every state," Plan-C, 2025, https://www.plancpills.org/.

[123] Brady E. Hamilton, Ph.D., Joyce A. Martin, M.P.H., and Michelle J.K. Osterman, M.H.S., "Vital Statistics Rapid Release | Births: Provisional Data for 2024," National Vital Statistics System, No. 38, April 2025, https://www.cdc.gov/nchs/data/vsrr/vsrr038.pdf.

[124] "1 in 6 people globally affected by infertility: WHO," World Health Organization, April 4, 2023, https://www.who.int/news/item/04-04-2023-1-in-6-people-globally-affected-by-infertility.

[125] "RFK Jr Sounds Alarm on U S Health Crisis "Our Children Are in Trouble," YouTube, April 8, 2025, https://www.youtube.com/shorts/shX_OHfg1Wo.

blocks progesterone in animals or humans, or otherwise adversely affects animal or human health and fertility. Indeed, as perhaps best stated by a 2010 study on certain contaminants in wastewater: "*[O]ur understanding of the environmental fate of these drugs [mifepristone among them] is still minimal. Considering the potential endocrine-disrupting properties of hormone antagonist pharmaceuticals, more detailed and comprehensive studies need to be conducted in the future.*"[126] This recommendation also falls squarely within the current administration's priorities — for example:

- The Make America Healthy Again (MAHA) Commission recommended launching a "national initiative to map gene-environment interactions affecting childhood disease risk, **especially for pollutants, endocrine disruptors, and pharmaceuticals"** —mifepristone and its metabolites are all three.[127]
- Building on this report, in September of 2025, the MAHA Commission explicitly called out the need for researching pharmaceuticals in our water supply.[128]
- Health and Human Services Secretary Robert F. Kennedy Jr. has called for an investigation into our nation's "alarming decline in fertility,"[129] which, combined with the above, suggests that at the very least, environmental review of this drug deserves immediate attention.

Finally, while we understand this call for comments pertains to listing on the CCL 6, LCA also strongly recommends inclusion of mifepristone and its metabolites on the next UCMR.[130]

Conclusion

Though required by law, the federal government (FDA) has never properly studied the potential adverse environmental effects of mifepristone and misoprostol. Such adverse effects include possible contributions to sewer system overflows and pathological waste contamination of water bodies resulting from improper disposition of aborted fetal remains (which do not break down like feces and toilet paper), as well as possible adverse impacts on human and animal health and fertility from the ingestion of active mifepristone metabolites that are more than likely in U.S. water sources. In short:

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[126] Xianjun Liu et. al., "Analysis of hormone antagonists in clinical and municipal wastewater by isotopic dilution liquid chromatography tandem mass spectrometry," *Analytical and Bioanalytical Chemistry*. . .

[127] The MAHA Report | Make Our Children Healthy Again Assessment," The White House, accessed May 23, 2025, https://www.whitehouse.gov/wp-content/uploads/2025/05/MAHA-Report-The-White-House.pdf

[128] "MAHA Commission Unveils Sweeping Strategy to Make Our Children Healthy Again," U.S. Department of Health and Human Services | Press Room, September 9, 2025, https://www.hhs.gov/press-room/mahacommission-report-childhood-disease-strategy.html.

[129] @Robert F. Kennedy Jr, X Post, September 20, 2024, https://x.com/RobertKennedyJr/status/1837263154478563798?lang=en.

[130] Given the various studies referenced that detected mifepristone in water, we know it is possible to monitor it. Furthermore, we know it is possible to test for pharmaceutical metabolites; see: Paula Paíga, Cristina Delerue-Matos, "Tracing Pharmaceuticals in Water Systems: Focus on Neurodegenerative and Psychiatric Treatments," Journal of Xenobiotics, November 21, 2024, https://pmc.ncbi.nlm.nih.gov/articles/PMC11586952/#notes3. For more reasoning on why LCA mifepristone merits placement on the UCMR, see "Memorandum for the Environmental Protection Agency Office of Water," Liberty Counsel Action, Fall 2025, https://abortioninourwater.org/PDFs/LCA/MemorandumtoEPAre-MifepristoneRegulations2026.pdf.

- Hundreds of thousands of women excrete mifepristone and its active metabolites annually, which then pass through WWTP into water supply sources.
- Environmental fate characteristics (slow degradation, synthetic chemistry), combined with constant replenishment, suggest mifepristone and its active metabolites persist in the environment.
- Active contaminants from mifepristone are also likely present in our drinking water as most water treatment infrastructure is not designed to remove this class of contaminants.
- Mifepristone acts as an endocrine disruptor. As numerous scientific articles demonstrate endocrine-disrupting substances can have an adverse effect on animal and human health even if present in trace amounts, it stands to reason that even if the amount of mifepristone and its metabolites in our water is minimal—present in PPT— similar harm is likely occurring.

Furthermore, mifepristone is the only pharmaceutical that was both developed and approved by the FDA to end a life in the womb and generate human fetal remains and medical waste, which is itself reason enough to ensure it undergoes heightened environmental scrutiny – warranting placement on the EPA's final CCL 6 and further research. As clearly outlined in a recent Congressional letter to the EPA, "*If residual amounts of the drug and its metabolites persist in wastewater, prolonged exposure could potentially interfere with a person's fertility, regardless of sex. . . it is reckless to allow a known progesterone blocker to be flushed into America's drinking water without knowing definitively if it impacts fertility rates*."[131]

Given the CCL can serve as a precursor to occurrence monitoring, research and regulation, Liberty Counsel Action reiterates its above recommendation that the SAB CCL 6 DWC recommend the EPA include mifepristone, CAS Registry Number 84371-65-3, and mifepristone's active monodemethylated, didemethylated, and hydroxylated metabolites, by name on the final Draft CCL 6.

Appendix 1: Supplementary Information to Further Address Opposing Viewpoints

Please note: The information referenced in the responses to common arguments at times repeats information noted above, however, we felt it may be helpful to provide a few consolidated responses to such views.

[131] U.S. Senator James Lankford and Representative Josh Brecheen, et. al., "Members of Congress to the Honorable Lee Zeldin, Administrator, U.S. Environmental Protection Agency," June 18, 2025, https://www.lankford.senate.gov/wp-content/uploads/2025/06/Congressional-Letter-to-EPA-reMifepristone1.pdf.

Liberty Counsel Action Comment on the U.S. Environmental Protection Agency (EPA) Draft CCL 6

1. Argument: "There is **no credible evidence**" that the abortion pill mifepristone or the human fetal remains generated by its use are "contaminating U.S. water supplies at levels that would harm humans, animals, or the environment."[132]

Response: This argument is both misleading and untrue. It is untrue to say there is *no* credible evidence that mifepristone may harm humans and the environment (though "credible" is arguably a subjective word). Indeed, the evidence base suggesting mifepristone may be harmful to our ecosystem (including you and me) is substantial. Consider, for example, a 2019 study on pharmaceuticals of emerging concern which explicitly outlines that the "long-term effects" of daily, low doses of pharmaceuticals consumed in drinking water "are still unknown," which is cause for concern.[133] Furthermore, *it has not been comprehensively studied, so there is lack of data*. It by no means logically follows that no harm is occurring. What one should logically conclude is that further study is needed, a very common conclusion in scientific inquiry.

2. Argument: Many pharmaceuticals will be removed in wastewater treatment plant processes, and mifepristone specifically is "effectively removed by most modern wastewater treatment plants."[134]

Response: "Many" and "most" are not all. To the first point:

- Recent studies have shown numerous pharmaceuticals in both our water supply and drinking water.[135] For example, a joint, two-phase U.S. Geological Survey-U.S. Environmental Protection Agency study found several pharmaceutical contaminants present in treated water, specifically detecting 26 different pharmaceuticals across 25 drinking water treatment plants.[136] This is may

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[132] Jody McCreary, "Abortion Contaminants in the Water Supply: Are the Rumors True?," MedPage Today, September 17, 2025, https://www.medpagetoday.com/obgyn/abortion/117489.

[133] Manvendra Patel et. al., "Pharmaceuticals of Emerging Concern in Aquatic Systems: Chemistry, Occurrence, Effects, and Removal Methods," *Chemical Reviews,* Vol. 119. No. 6, 2019, https://pubs.acs.org/doi/10.1021/acs.chemrev.8b00299.

[134] Jody McCreary, "Abortion Contaminants in the Water Supply: Are the Rumors True?," . . .

[135] Examples include but are not limited to those listed under the section entitled "Demonstrating Americans May Be Consuming Trace Amounts of Mifepristone and Its Metabolites."

[136] Edward T. Furlong et. al., "Nationwide reconnaissance of contaminants of emerging concern in source and treated drinking waters of the United States: Pharmaceuticals," *Science of The Total Environment*, Vol. 579, February 1, 2017, https://www.sciencedirect.com/science/article/abs/pii/S0048969716305551?via%3Dihub. Similarly, a study in South Korea found that "while water treatment processes are effective, there are some persistent compounds that prove challenging to fully eliminate." It goes on to note that though most pharmaceuticals "*are not highly persistent, **continuous addition of the parent PPCPs and their metabolites to the environment in small notable amounts, has led to their being considered as "pseudo-persistent***"* and, given "***they are biologically active even at low concentrations . . . their presence in treated drinking water may pose a significant threat to the drinking water quality.***" As outlined: Mifepristone and its metabolites are both biologically active and continually added to the environment. Even so, "despite the global increase in the manufacture, consumption, and environmental discharge of [pharmaceuticals and personal care products or, PPCPs], for a vast majority, there has been no environmental regulations," including for mifepristone. While some have made it on the EU's watch list (in 2020, five PPCPs "were included; in 2022, a few more were proposed), mifepristone continues to avoid scrutiny. See: Kimberly Etombi Muambo et. al., "Pharmaceuticals in raw and treated water from drinking water treatment plants nationwide: Insights into their sources and exposure risk assessment," Water Research X, Vol. 24, September 1, 2024, https://www.sciencedirect.com/science/article/pii/S258991472400046X.

be in part due to the fact that, according to the EPA, "*synthetic compounds, such as pharmaceuticals, are often manufactured to be resistant to metabolic transformation.*" [137] Notably, mifepristone is a synthetic drug.[138]

- Most WWTP are **conventional**, which are not designed to fully remove active pharmaceutical contaminants.[139] More specifically, conventional WWTP do *not* utilize advanced treatment processes like ozonation (which are argued to "further degrade steroidal drugs and make the likelihood of meaningful exposure through drinking water extremely low" [140]). As aptly summarized by one research article:

  > *Pharmaceuticals have long been present in the environment . . . but their detection and hazardous effects have only emerged in the past 2–3 decades. Despite many publications on this topic, their individual and combined acute and chronic effects on the flora, fauna, and humans are not well understood. No global legal maximum environmental concentrations exist for pharmaceutically active compounds. . .* ***Primary and secondary WWTP treatments generally are unable to remove these pollutants, leading to their migration into drinking water supplies***.[141]

To the second point, that mifepristone specifically is effectively removed by most "***modern***" wastewater treatment plants (it is claimed that it "tends to bind to solid waste"), consider the following:

- Various scientific studies on mifepristone in our environment concur – it is there, and it does present a risk.

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*Note: The article cites the following: Manvendra Patel, et. al., "Pharmaceuticals of Emerging Concern in Aquatic Systems: Chemistry, Occurrence, Effects, and Removal Methods," *Chemical Reviews,* Vo. 119, March 4, 2019, https://pubs.acs.org/doi/10.1021/acs.chemrev.8b00299, which states, "PPCPs are not all persistent, but continuous release of many to the environment makes these compounds 'pseudopersistent'. Pseudopersistent pharmaceuticals are likely to exhibit greater environmental persistence than other contaminants like pesticides, because they are continually replenished even though undergoing biodegradation, photodegradation, and particulate sorption."

[137] "Management and Disposal of Unused Pharmaceuticals (Interim Technical Report) (EPA-821-R-08-013) - DCN 05519," U.S. Environmental Protection Agency, September 15, 2008, https://www.regulations.gov/document?D=EPA-HQ-OW-2006-0771-1694.

[138] Blake M. Autry and Roopma Wadhwa, "Mifepristone," National Library of Medicine, February 28, 2024, https://www.ncbi.nlm.nih.gov/books/NBK557612/.

[139] "Primer for Municipal Wastewater Treatment Systems," United States Environmental Protection Agency, September 2004, https://www.epa.gov/sites/default/files/2015-09/documents/primer.pdf. Specifically, "Conventional Systems are wastewater treatment systems that have been traditionally used to collect municipal wastewater in sewers and convey it to a central facility for treatment prior to discharge to surface waters. Either primary or secondary treatment may be provided in a conventional system." Per another source, "As of 2022, there were 17,544 publicly owned treatment works (POTWs) operating in the U.S. During that period, only 37.5 percent of them had advanced treatment processes in their plants. Advanced treatment aims to reduce or eliminate impurities below what is attainable through more **conventional secondary treatment**, for example, ozone treatment, membrane bioreactors, and ultraviolet processes." Lucía Fernández, "Distribution of publicly owned wastewater treatment works (POTWs) in the United States as of 2022, by treatment level," Statista, November 28, 2025, https://www.statista.com/statistics/1473528/distribution-wastewater-treatment-plants-usa-by-type/.

[140] Jody McCreary, "Abortion Contaminants in the Water Supply: Are the Rumors True?," . . .

[141] Manvendra Patel et. al., "Pharmaceuticals of Emerging Concern in Aquatic Systems: Chemistry, Occurrence, Effects, and Removal Methods," *Chemical Reviews,* Vol. 119. No. 6, 2019, https://pubs.acs.org/doi/10.1021/acs.chemrev.8b00299.

  - According to a 2010 study, mifepristone has been detected in both hospital wastewaters[142] and wastewater treatment plant effluent.[143]
  - According to a 2019 study, mifepristone has been reported in fresh and saltwater, "representing a danger for aquatic species."[144]
  - As summarized by a 2024 study, "**Mifepristone is widely distributed in the environment**."[145]
- U.S. water supplies have never been comprehensively monitored or tested to determine the amount of contamination present from mifepristone and its active metabolites, nor have said contaminants been comprehensively studied to determine the harm they may be causing to wildlife and humans.

In short, we do not have definitive evidence that mifepristone is "effectively removed by most modern wastewater treatment plants," nor that no harm is occurring. Quite the opposite: mifepristone has been detected in water, numerous scientific articles suggest it may cause harm, and, as recommended by numerous scientific research articles, further study is necessary.

3. Argument: Advanced and/or post-treatment processes at wastewater and drinking water treatment facilities can remove pharmaceuticals.

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[142] Xianjun Liu et. al., "Analysis of hormone antagonists in clinical and municipal wastewater by isotopic dilution liquid chromatography tandem mass spectrometry," *Analytical and Bioanalytical Chemistry*, Vol. 396, No. 8, March 1, 2010, https://research.ebsco.com/c/r3w5i4/viewer/pdf/gmrego5wyz?route=details. This study states, "*Although mifepristone is easily transformed to monochloromifepristone, which induces a low recovery from clinical wastewater, it was found in 17 samples [of hospital effluent] with a maximum value of 195 ng/L."* This same study further notes mifepristone was found in *"all the influent sewage samples"* and was likewise *"identified in the effluent"* (at . 70 and .75 n/L).

[143] Ibid. See also a 2014 study in which "*A targeted analytical method was established to determine a large number of chemicals known to interfere with the gluco- and mineralocorticoid signalling pathway;*" it detected mifepristone in "Swiss rivers and wastewaters," with the highest detection being 17 ng/L in hospital wastewaters. See: Adrian A. Ammann, et. al., "LC-MS/MS determination of potential endocrine disruptors of cortico signalling in rivers and wastewaters," *Analytical and Bioanalytical Chemistry*, Vol. 406, October 7, 2014, https://link.springer.com/article/10.1007/s00216-014-8206-9#Tab5, Table 4 (https://link.springer.com/article/10.1007/s00216-014-8206-9/tables/4).

[144] Adele Fabbrocini et. al., "Mifepristone affects fertility and development in the sea urchin Paracentrotus lividus," Molecular Reproduction and Development, Vol. 86, No. 10., January 13, 2019, https://pubmed.ncbi.nlm.nih.gov/30637836/. See also, Michal Pech et. al., "Effects of mifepristone, a model compound with anti-progestogenic activity, on the development of African clawed frog (Xenopus laevis)," *Aquatic Toxicology,* Vol. 263, October 2023, https://www.sciencedirect.com/science/article/pii/S0166445X23002965#bib0047. This article states, "*Very high anti-progestogenic activities (up to 121 μg/L mifepristone equivalents (EQs)) were detected in surface waters in China (Rao et al., 2014). Anti-progestogenic activities as high as 32 μg/L mifepristone EQs were also reported in Australian surface waters (Scott et al., 2010), namely, in samples from industrial (50 %) and residential (23 %) areas, downstream of wastewater treatment plants (13 %), and in agricultural regions (6 %)."* If mifepristone equivalents are in the water, it seems likely mifepristone itself also is.

[145] Tlou A. Makwakwa, Dineo E. Moema, and Titus A. M. Msagati, "Multi-criteria decision analysis: technique for order of preference by similarity to ideal solution for selecting greener analytical method in the determination of mifepristone in environmental water samples*," Environmental Science and Pollution Research*, Vol. 31, April 5, 2024, https://link.springer.com/article/10.1007/s11356-024-32961-3.

Response: As noted above, most wastewater treatment plants are conventional, not advanced,[146] as are most drinking water treatment plants.[147] Furthermore:

- While there are advanced treatment systems that can remove **certain** pharmaceuticals, they face numerous limitations — for example, some have higher operational costs, and, depending on the type of advanced treatment, can require high energy consumption and lead to "the formation of toxic by-products," which raises "significant environmental safety concerns."[148]
- The costs of implementing and operating the more effective systems would likely be beyond what rural communities, particularly, could afford.[149]
- Even if this is pursued, it would take decades to fully implement across the United States. The U.S. Government should not be risking Americans' health by continuing to allow possible exposure to mifepristone metabolites while water treatment processes are updated. (Also of note: If removal of mifepristone and its metabolites at the level of drinking water plants is pursued apart from seeking to update the treatment processes of WWTP, the potential harm to the environment remains. See point 7 for more on this).
- Such efforts still would not get rid of the disturbing reality that human fetal remains and related medical waste are daily being flushed into our wastewater systems, likely contributing to clogs and sewer system overflows,[150] and/or being processed at WWTP

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[146] Lucía Fernández, "Distribution of publicly owned wastewater treatment works (POTWs) in the United States as of 2022, by treatment level," Statista . . .

[147] Ronnie Levin et. al., "US drinking water quality: exposure risk profiles for seven legacy and emerging contaminants," *Nature Portfolio,* Vol. 34, September 22, 2023, https://pmc.ncbi.nlm.nih.gov/articles/PMC10907308/. Specifically, this study references the EPA's most recent Community Water System Survey, noting: "*Most US drinking water treatment plants provide conventional treatment including coagulation, sedimentation, sand filtration, and chlorination. EPA's most recent Community Water System Survey found that less than 10% of drinking water treatment plants use modern technologies such as ion exchange, granular activated carbon (GAC), ozone, UV disinfection, or membranes*." Also of note: "*The most widely applied water treatment technology, a combination of some or all of* ***coagulation***, ***flocculation*** *and* ***sedimentation***, *plus* ***filtration***, *has been used routinely for water treatment since the early part of the twentieth century*;" and as another source states, "*Conventional treatment plants use* ***coagulation***, ***sedimentation***, ***filtration*** *and* ***disinfection***, *and are common for surface water*." See: "Drinking Water Treatment Process Overview," Spartan Environmental Technologies, accessed January 5, 2026, https://spartanwatertreatment.com/drinking-water-treatment-overview/ and "What is a water treatment plant?" *Water World,* August 29, 2025, https://www.waterworld.com/what-is-articles/article/55313339/what-is-a-water-treatment-plant.

[148] Ojima Zechariah Wada and David Bamidele Olawade, "Recent occurrence of pharmaceuticals in freshwater, emerging treatment technologies, and future considerations: A review," Chemosphere, Vol. 374, April 2025, https://www.sciencedirect.com/science/article/pii/S0045653525000955. This article specifically outlines that " . . .*high energy consumption is a notable drawback, particularly in pressure-driven systems like reverse osmosis, which require substantial energy inputs to maintain performance. Environmental concerns also arise from the disposal of concentrated brine or retentate, a by-product of the filtration process that contains high levels of contaminants. Improper disposal can lead to secondary environmental pollution . . .*"

[149] "About Small Wastewater Systems," U.S. Environmental Protection Agency, March 31, 2025, https://www.epa.gov/small-and-rural-wastewater-systems/about-small-wastewater-systems.

[150] Per the EPA, sewer system overflow causes include "Inappropriate materials sent to the sewers — materials such as fats, oils and grease (FOG), and some 5 household products . . . such as baby wipes, facial wipes, sanitary pads, and tampons," — aborted fetal remains are similar in nature to these materials. See: "Sanitary Sewer Overflow (SSO) Frequent Questions," U.S. Environmental Protection Agency, April 22, 2025, https://www.epa.gov/npdes/sanitary-sewer-overflow-sso-frequent-questions.

(which do not remove all organic waste, meaning it is likely aborted human fetal remains are entering the water supply at a molecular level).[151]

4. Argument: While mifepristone may be in our water, the concentrations are so low that it won't affect animal or human health.

Response: Various scientific studies on mifepristone in our environment concur— mifepristone is in the water, it has the potential to bioaccumulate, and it presents a risk to both animal and human health.

As noted above:

- A 2019 study on the effects of mifepristone exposure on sea urchins makes clear that mifepristone has been reported in fresh and saltwater, "**representing a danger for aquatic species**."[152]
- A 2024 scientific study on the analytical methods used to detect mifepristone in water states:

  "Mifepristone residues in the aquatic environment have recently grown to be one of the most alarming public health concerns. Mifepristone has the potential to be hazardous to aquatic's life and humans, and it has been linked to the fast growth of endocrine disruptors in the environment . . . Mifepristone is widely distributed in the environment, *and several studies that have been published using various analytical techniques demonstrate the ongoing interest in and intense level of research effort on this compound's presence in the environment.*"[153]

[151] See Liberty Counsel Action's white paper, "Abortion in Our Water: A Special Report," 2025, available at https://lcaction.org/LCAPDFs/AbortionInOurWater_Final01.pdf; section 3, "Wastewater Treatment and Water Filtration Processes Incapable of Removing All Contaminants." This section details that approximately 10 percent of the organic matter in wastewater — which may include aborted fetal remains (consider, for example, microscopic fragments of skin or other organic fetal remains) — is not removed nor required to be, per the EPA's standards (see point 4 and footnote 14).

[152] Adele Fabbrocini et. al., "Mifepristone affects fertility and development in the sea urchin Paracentrotus lividus," *Molecular Reproduction and Development,* January 13, 2019, https://onlinelibrary.wiley.com/doi/full/10.1002/mrd.23112?saml_referrer. Said study concluded that exposure to mifepristone "*caused a decrease in fertility and embryo development*" in female sea urchins, specifically reducing the percent of normally developed larvae.

[153] Tlou A Makwakwa, Dineo E Moema, Titus A M Msagati, "Multi-criteria decision analysis: technique for order of preference by similarity to ideal solution for selecting greener analytical method in the determination of mifepristone in environmental water samples," *Environmental Science and Pollution Research*, April 5, 2024, https://pmc.ncbi.nlm.nih.gov/articles/PMC11058867/.

- Furthermore, according to a Swedish source, "mifepristone is *not* readily biodegradable" (emphasis added) — rather, it "can be considered as slowly degraded in the environment."[154] (Other sources note biodegradation data is not available for mifepristone.[155] [156]
- Even if the former is true (that the potential for bioaccumulation is low), the *potential* for said bioaccumulation combined with the fact that mifepristone is *slowly degraded* in the environment and has a long half-life,[157] suggests further study is more than warranted.
- We also know that other pharmaceuticals and similar contaminants (*such as those that, like the abortion pill mifepristone, may cause endocrine disruption, e.g. PFAS)* in our water may cause harm to wildlife and humans over time, even if consumed in trace amounts.[158] Even so, the possible effects pharmaceutical contaminants may cause over time have not been comprehensively studied, nor has the complex interaction of multiple pharmaceuticals and

[154] "Nordic Drugs AB | Mifegyne, Tablet 200 mg," FASS, accessed January 5, 2026 at https://fass.se/health/product/19920904000068 (see also https://fass.se/health/product/20100302000013). (Note: under the heading "Environmental impact," one must click "see detailed environmental information.") Specifically, this source states "In an aerobic biodegradation study (28 days) in water Mifepristone was not considered as readily biodegradable (< 10 per cent degradation)." More specifically: "Mifepristone was exposed to two aerobic biologically active sediment systems (sediment A: high organic matter; sediment B: low organic matter). According to results, the DT50/DT90 values for Mifepristone are 4.5/14.9 days (water phase), 72.1/239.0 days (sediment phase) and 14.3/212.0 days (total system) for sediment system A and 4.1/13.5 days (water phase), 29.6/98.4 days (sediment phase) and 12.7/42.3 days (total system) for sediment system B. As the DT50 values are ≤ 72.1 days, **Mifepristone can be considered as slowly degraded** in the environment."

[155] National Center for Biotechnology Information, "PubChem Compound Summary for CID 55245, Mifepristone," PubChem, Retrieved June 2, 2025 from https://pubchem.ncbi.nlm.nih.gov/compound/Mifepristone; Sigma-Aldrich, "Safety Data Sheet," October 16, 2025, https://www.sigmaaldrich.com/US/en/sds/sigma/m8046?srsltid=AfmBOooq4PzIEQ0H17ZS-ObGO9PAV4EjJf4mYqBfP7yaQDoUWt6Tga7R; "Chemical Safety Data Sheet MSDS / SDS | Mifepristone," ChemicalBook, November 22, 2025, https://www.chemicalbook.com/msds/mifepristone.htm.

[156] While those critical of concerns regarding mifepristone in the environment may point out that the same aforementioned Swedish source states, "Mifepristone has low potential for bioaccumulation," the National Library of Medicine's Biotechnology Center states that mifepristone's "potential for bioconcentration in aquatic organisms is very high." Ibid. Note: A study on pharmaceuticals generally likewise found that*, "Similar to the perceived harmful effects of plastic waste on humans and marine life, pharmaceuticals can be resistant to degradation, persistent pollutants in water bodies, lipophilic or water-soluble, and can be taken up by biota and bioaccumulate*." See: Zvanaka Mazhandu and Tebogo Mashifana, "Active pharmaceutical contaminants in drinking water: myth or fact?", . . .

[157] "The pharmacokinetics of mifepristone are characterised by rapid absorption, a long half-life of 25 to 30 hours and micromolar serum concentrations following ingestion of doses currently in clinical use." See: Oskari Heikinheimo, "Clinical Pharmacokinetics of Mifepristone," Clinical Pharmacokinetics, Vol. 33, July 1997, https://link.springer.com/article/10.2165/00003088-199733010-00002. See also: "PRODUCT INFORMATION - MS-2 Step," May 22, 2014, https://www.tga.gov.au/sites/default/files/auspar-mifepristone-misoprostol-141013-pi.pdf.

[158] See Liberty Counsel Action's white paper, "Abortion in Our Water: A Special Report," 2025, available at https://lcaction.org/LCAPDFs/AbortionInOurWater_Final01.pdf; section 4,"*Impact of Emerging Contaminants: Pharmaceuticals and 'Forever Chemicals' in Our Environment Suggest Mifepristone Contamination Deserves Strict Scrutiny*." See also the following legislation recently introduced in Congress: "S.3460 - PFAS Accountability Act of 2025," Congress.gov, December 11, 2025, https://www.congress.gov/bill/119th-congress/senate-bill/3460/text.

other contaminants been comprehensively studied for all possible combined effects[159] (particularly in children).[160] As outlined by the EPA:

- Even though the "potential effects on public health and aquatic life" of pharmaceuticals "at the extremely low levels observed in drinking water and surface water" are uncertain; "concerns include hormone disruption, antibiotic resistance, and synergistic effects from the mixtures of various pharmaceutical compounds present in water."[161]
- The EPA goes on to state that, "while observed levels of pharmaceutical compounds in streams may not be acutely toxic, the effects of discharges of pharmaceuticals on aquatic life can include **subtle and gradual effects**" (emphasis added), such as disruption in hormones that may affect growth, reproduction, and development.[162]

- Consider as well that mifepristone blocks a vital fertility hormone, which accounts for its lethal in nature. Combine with the fact that its metabolites likely retains the ability of their parent drug, mifepristone, to block the vital fertility hormone, progesterone and, as (outlined above) most conventional waste and drinking water treatment plants do not fully remove these sorts of contaminants, one can conclude that active components of the abortion pill entering our water supplies may be causing harm to human health and fertility. Given we do not know what may happen, over time, to someone consuming trace amounts of these contaminants, clearly the lethal pill warrants a heightened level of scrutiny.

The risk that mifepristone will build up (bioaccumulate) in living aquatic organisms — particularly given it is not expected to readily degrade — is real.[163] When one considers that the drastic decrease in fertility across the U.S. correlates to the drastic increase in the use of chemical abortion pills, the logical conclusion is to call for further study to determine possible causation. In short, there is a clear risk that active abortion pill contaminants in our water negatively impact human health.

5. Argument: Chemical abortion has been effective for decades, is used to treat other things, and claims that it harms the environment are simply a means to control women's bodies.

Response: This is not about a woman's ability to choose. Indeed, she could still choose a surgical abortion (which is not only safer but likely reduces the trauma women may face, as they are unlikely

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[159] Ojima Zechariah Wada and David Bamidele Olawade, "Recent occurrence of pharmaceuticals in freshwater, emerging treatment technologies, and future considerations: A review," . . . see also Manvendra Patel et. al., "Pharmaceuticals of Emerging Concern in Aquatic Systems: Chemistry, Occurrence, Effects, and Removal Methods," . . .

[160] "The MAHA Report | Make Our Children Healthy Again Assessment," The White House, accessed January 5, 2026, https://www.whitehouse.gov/wp-content/uploads/2025/05/WH-The-MAHA-Report-Assessment.pdf.

[161] "Health Services Industry Study Management and Disposal of Unused Pharmaceuticals (Interim Technical Report)," U.S. Environmental Protection Agency, August 2008, https://downloads.regulations.gov/EPA-HQ-OW-2006-0771-1694/content.pdf.

[162] Ibid.

[163] United States Environmental Protection Agency, "Toxics in the Food Web," June 2021, https://www.epa.gov/salish-sea/toxics-food-web. According to the EPA, *"Biomagnification is a process where substances increase as they are carried through from prey in in fatty tissues to its predator levels. This process can continue on and is called trophic magnification. Contaminants may only be found in small amounts at the lowest levels of food webs but can still have impacts on top predators that eat large quantities of other organisms in the food web through trophic magnification."*

to see the human fetal remains resulting from the abortion). Furthermore, there remains the primary matter of the FDA's historic negligence in failing to ensure the approval of mifepristone complied with state and local laws on water quality and medical waste (clear violations of the Clean Water Act and National Environmental Policy Act). This needs to be properly addressed both to ensure it does not happen again, as well as to ensure any adverse effects caused by these negligent actions are properly addressed.

Finally, some may point out that mifepristone is the active ingredient in Korlym, which is sometimes used to treat Cushing Syndrome. Specifically, Korlym is "indicated for people who have type 2 diabetes or glucose intolerance and for whom surgery is not an option or has failed to control their symptoms."[164] As it pertains to using Korlym (mifepristone) to treat the syndrome, consider the following:

1. About 70 percent of patients with Cushing's syndrome have Cushing's disease, and in these cases, surgery to remove the disease-causing tumor is "usually the first-line treatment" and "can cure the disease in up to 90% of patients."[165]
2. Per one expert, "Pills will never be better than surgery for adrenal Cushing's syndrome . . . since pills
   - Do not fix the underlying problem. The underlying problem is a tumor. The tumor does not disappear because you take a pill. It is like putting a Band-Aid on a large, bleeding artery. It does not fix the problem.
   - Are very toxic and have a lot of side effects.
   - Are highly expensive compared to surgery.

   ... there are occasional times where these medications are useful. For instance:
   - The patient has very high cortisol levels and the doctor needs to control it (as a bridge) until surgery.
   - Korlym has some promising signs of lowering cortisol and reducing weight in patients with adrenal Cushing's syndrome making adrenal surgery more straightforward. Again, pills would be used as a bridge to adrenal surgery.
   - In patients who have adrenal cancer that has spread, and surgery is no longer an option."[166]
3. Korlym is one of several medications used to treat Cushing's syndrome.[167]

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[164] See: Lindsey Shapiro, "Korlym (mifepristone) for Cushing's disease," Bionews, Inc., August 29, 2023, https://cushingsdiseasenews.com/korlym-mifepristone/.

[165] Marisa Wexler, MS, "Cushing's disease overview," Bionews, Inc., August 16, 2023, https://cushingsdiseasenews.com/what-is-cushings-disease/.

[166] Dr. Tobias Carling, "Top 5 Myths about Adrenal Cushing's Syndrome," Adrenal.com, November 23, 2021, https://www.adrenal.com/blog/top-5-myths-about-adrenal-cushing-s-syndrome.

[167] Rosario Pivonello, et. al., "The Treatment of Cushing's Disease," *Endocrine Reviews,* Vol. 36, No. 4, August 10, 2015, December 2023, https://academic.oup.com/edrv/article-abstract/36/4/385/2354703?redirectedFrom=fulltext. See also: "Cushing Syndrome," Cleaveland Clinic, 12/27/2022, https://my.clevelandclinic.org/health/diseases/5497-cushing-syndrome; Martin Reincke, MD, and Maria Fleseriu, MD, "Cushing Syndrome | A Review," JAMA, Vol. 330, No. 2, July 11, 2023, https://jamanetwork.com/journals/jama/fullarticle/2807073.

In short, using Cushing syndrome to suggest one should not monitor or regulate mifepristone ignores the reality that in this context it does not generate pathological waste, and it is relatively rare[168] – unlike mifepristone used for abortion, a usage which continues to increase annually.

For more responses to common opposing viewpoints, please see Liberty Counsel Action's resource addressing the "Top Ten Rebuttals to Common Arguments, available at: https://abortioninourwater.org/PDFs/AIOW/TopTenRebuttalstoCommonArguments-Jan2026.pdf.

Appendix 2: Supplementary Information on Evidence of Pharmaceuticals in Water

1. A 2024 study outlines: "*Numerous studies have demonstrated the inadequacy of conventional water treatment processes in removing active pharmaceutical ingredients (APIs) from the water. These pharmaceutical active compounds have been detected in treated wastewater, groundwater, and even drinking water sources. The presence of APIs in water resources poses a significant threat not only to aquatic organisms but also to human health. These emerging contaminants have the potential to disrupt endocrine systems, promote the development of antibiotic-resistant bacteria, and bioaccumulate in the food chain, ultimately leading to unacceptable risks to public health.*"[169]
2. A 2022 study outlines: "*After ingestion, pharmaceuticals are excreted in urine and feces as active substances or metabolites (Sui et al., 2015; ausder Beek et al., 2016). These pharmaceuticals are present in both influent and effluent wastewater but can also be found in surface water bodies, including freshwater ecosystems and marine environments, as well as in groundwater due to effluent leachates generated under recharge conditions (Deo, 2014; Furlong et al., 2017; Ojemaye and Petrik, 2018; Reis-Santos et al., 2018; Fekadu et al., 2019; Letsinger et al., 2019; Zainab et al., 2020). The main concern is that conventional treatment plants are ineffective in removing some of these emerging contaminants (ECs).*"[170]
3. Another 2022 study states: "*With the increase in demand of Pharmaceuticals and Personal Care Products (PPCPs), there has been a sharp increase of these pollutants in water bodies. This is mainly due to the inefficiency of conventional wastewater treatment plants in treatment and removal of these PhACs.*"[171]

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[168] Sarah Jane Tribble, "How A Drugmaker Turned The Abortion Pill Into A Rare-Disease Profit Machine," KFF Health News, April 10, 2018, https://kffhealthnews.org/news/how-a-drugmaker-turned-the-abortion-pill-into-a-rare-disease-profit-machine/.

[169] Zvanaka Mazhandu and Tebogo Mashifana, "Active pharmaceutical contaminants in drinking water: myth or fact?," DARU Journal of Pharmaceutical Sciences, September 18, 2024, https://link.springer.com/article/10.1007/s40199-024-00536-9.

[170] Maite Ortúzar et. al., "Pharmaceutical Pollution in Aquatic Environments: A Concise Review of Environmental Impacts and Bioremediation Systems," *Frontiers in Microbiology,* Vol. 13, April 26, 2022, https://www.frontiersin.org/journals/microbiology/articles/10.3389/fmicb.2022.869332/full.

[171] Kundan Samal, Saswat Mahapatra, and Md Hibzur Ali, "Pharmaceutical wastewater as Emerging Contaminants (EC): Treatment technologies, impact on environment and human health," Energy Nexus, Vol. 6, June 16, 2022, https://www.sciencedirect.com/science/article/pii/S2772427122000390.

4. A 2019 study states: "*Wastewater treatment plants (WWTPs) were never designed for and do not completely remove pharmaceuticals,*"[172] and while *"Pharmaceuticals have long been present in the environment . . . their detection and hazardous effects have only emerged in the past 2–3 decades*. ***Despite many publications on this topic, their individual*** *and combined* ***acute and chronic effects on . . . humans are not well understood****. . .Primary and secondary WWTP treatments generally are unable to remove these pollutants, leading to their migration into drinking water supplies.*"[173]

[172] Manvendra Patel et. al., "Pharmaceuticals of Emerging Concern in Aquatic Systems: Chemistry, Occurrence, Effects, and Removal Methods," Chemical Reviews, Vol. 119. No. 6, 2019, https://pubs.acs.org/doi/10.1021/acs.chemrev.8b00299.
[173] Ibid.