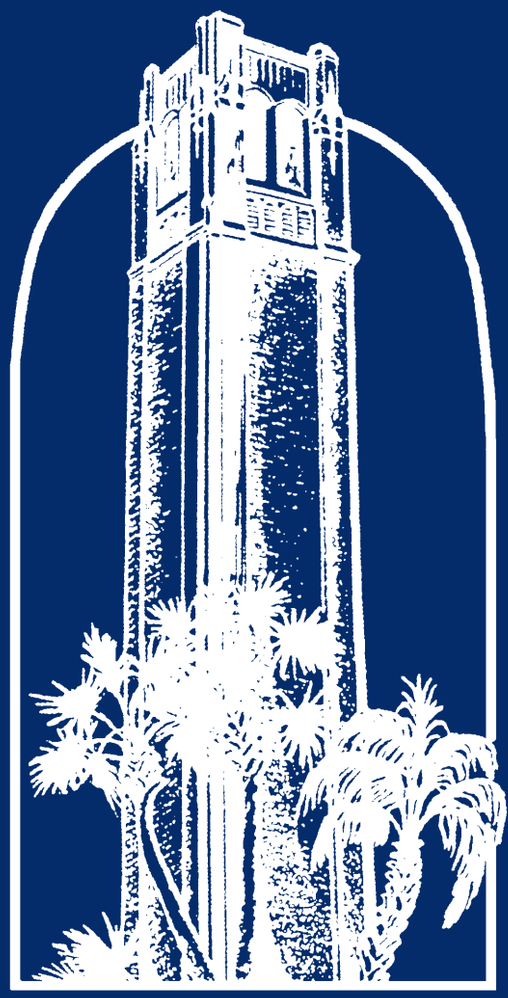

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NOTES

HOLDING STATES ACCOUNTABLE FOR HARMFUL ALGAL BLOOMS: FLORIDA'S WATER CRISIS IN FOCUS

Jason Totoiu and *Jaclyn Lopez*[*]

Abstract

Scientists generally agree that agricultural runoff is a principal source of nutrient pollution in the United States. Intensive agricultural practices have resulted in decades of phosphorus and nitrogen accumulating in the natural system which continue to contribute substantially to nutrients entering watersheds. Coupled with failed water quality control measures, this water pollution has led to some of the worst harmful algal blooms (HABs) in recorded history. These nonpoint sources need to be addressed to restore and protect water quality.

Florida's Lake Okeechobee watershed provides an apt case study. Commonly referred to as the "liquid heart" of the Everglades, the lake has experienced a proliferation of large scale HABs, sometimes covering an area of more than 500 square miles and observable from space. These HABs wreak havoc on the lake's ecology. When the lake reaches water levels that pose a flooding risk to communities to the south, the United States Army Corps of Engineers discharges billions of gallons of algae and nutrient laden water to the Caloosahatchee and St. Lucie estuaries on the west and east coasts. These algae blooms cause additional harm and destruction to wildlife in these systems and pose a threat to human health and local economies.

This Article seeks to provide water quality advocates, lawmakers, and government agencies with a regulatory and policy framework for addressing HABs in their states, using Lake Okeechobee and its coastal estuaries as a case study.

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INTRODUCTION

States across the nation are experiencing water quality crises unlike any other in their history.[1] Harmful algal blooms (HABs), namely cyanobacteria and red tide, are making people sick,[2] killing and injuring

1. Robin Lloyd, *A Growing Drinking Water Crisis Threatens American Cities and Towns*, SCI. AM. (Sept. 9, 2022), https://www.scientificamerican.com/article/a-growing-drinking-water-crisis-threatens-american-cities-and-towns/# [https://perma.cc/K9FZ-PVEL].

2. *HABs: Harmful Algae Blooms*, FLA. HEALTH (Mar. 30, 2021), https://www.floridahealth.gov/environmental-health/aquatic-toxins/harmful-algae-blooms/index.html [https://perma.cc/73TM-S3G9]; *see* JENNIFER L. GRAHAM ET AL., U.S. GEOLOGICAL SURVEY, CYANOBACTERIAL HARMFUL ALGAL BLOOMS AND U.S. GEOLOGICAL SURVEY SCIENCE CAPABILITIES 2 (2016) (finding that cyanotoxins have been implicated in human and animal illness and death in at least 43 states).

wildlife,[3] and damaging local economies.[4] Unfortunately, the negative impacts of HABs are only expected to increase.[5] Agricultural, industrial, and municipal wastes, coupled with rising temperatures and changes in precipitation due to climate change, are contributing to the increased intensity, frequency, and magnitude of HABs as well as the production of cyanotoxins, such as microcystins and cylindrospermopsin.[6]

In Florida, the plight of the beloved Florida manatee provides a telling story of the effects of HABs. Over 1,000 manatees died in Florida in 2021,[7] more than double Florida's five-year average.[8] Nearly fifty percent of those deaths occurred in the Indian River Lagoon (IRL), where the suspected cause of mortality was starvation and malnutrition due to nutrient pollution that fueled excessive algae growth.[9] These algal blooms have killed an estimated 46,000 acres of seagrass—the manatee's primary food source—in this important warm water refuge.[10] The extreme die-off

3. Tim Stephens, *Sea Otter Deaths Linked to Toxin from Freshwater Bacteria*, U.C. SANTA CRUZ NEWSCENTER (Sept. 10, 2010), https://news.ucsc.edu/2010/09/otter-toxin.html [https://perma.cc/DW4H-4JZV]; Melissa A. Miller et al., *Evidence for a Novel Marine Harmful Algal Bloom: Cyanotoxin (Microcystin) Transfer from Land to Sea Otters*, 5 PLOS ONE 1, 1 (2015).

4. Walter K. Dodds et al., *Eutrophication of U.S. Freshwaters: Analysis of Potential Economic Damages*, 43 ENV'T SCI. & TECH. 12, 12 (2008); P. Hoagland & S. Scatasta, *The Economic Effects of Harmful Algal Blooms*, *in* 189 ECOLOGY OF HARMFUL ALGAE 391, 391–401 (Edna Granéli & Jefferson T. Turner eds., 2006).

5. Ellen P. Preece et al., *A Review of Microcystin Detections in Estuarine and Marine Waters: Environmental Implications and Human Health Risk*, 61 HARMFUL ALGAE 31, 32, 41 (2017).

6. Rajesh P. Rastogi et al., *Bloom Dynamics of Cyanobacteria and Their Toxins: Environmental Health Impacts and Mitigation Strategies*, 6 FRONTIERS MICROBIOLOGY 1254, 1254 (2015).

7. *2021 Manatee Mortalities*, FLA. FISH & WILDLIFE CONSERVATION COMM'N, https://myfwc.com/research/manatee/rescue-mortality-response/statistics/mortality/2021/ [https://perma.cc/5BLW-8RYD] (last visited Jan. 31, 2023); Jim Waymer, *Merritt Island Park Now a 'Manatee Graveyard' as Florida Sea Cows Starve to Death*, FLA. TODAY (Mar. 10, 2021, 6:52 PM), https://www.clickorlando.com/news/2021/03/09/merritt-island-park-now-a-manatee-graveyard-as-florida-sea-cows-starve-to-death/ [https://perma.cc/2ZZE-26ZL].

8. Zachary T. Sampson, *Florida Manatees Are Dying at a Worrisome Rate. Many Appear to Be Starving*, TAMPA BAY TIMES (Mar. 11, 2021), https://www.tampabay.com/news/environment/2021/03/11/florida-manatees-are-dying-at-an-alarming-rate-many-are-starving/ [https://perma.cc/JE4H-P8XA].

9. Greg Allen, *As Seagrass Habitats Decline, Florida Manatees Are Dying of Starvation*, NPR (June 21, 2021, 3:15 AM), https://www.npr.org/2021/06/21/1006332218/as-seagrass-habitats-decline-florida-manatees-are-dying-of-starvation [https://perma.cc/DJM6-D4TH].

10. Amy Green, *Manatee Die-Off in Indian River Lagoon Prompts Call for Federal Investigation*, WUSF (Mar. 15, 2021, 6:44 AM), https://wusfnews.wusf.usf.edu/environment/2021-03-15/manatee-die-off-in-indian-river-lagoon-prompts-call-for-federal-investigation [https://perma.cc/JP8A-W37L]; Dyllan Furness, *Decimated by Famine, Florida's Manatees Face an Uncertain Future*, GUARDIAN (July 31, 2021, 5:00 AM), https://www.theguardian.com/environment/2021/jul/31/florida-manatees-famine-face-uncertain-future [https://perma.cc/W8PC-T67E].

in the IRL led to the official designation of an Unusual Mortality Event under the Marine Mammal Protection Act.[11] Meanwhile, red tides claimed the lives of hundreds of manatees during significant blooms in 1996,[12] 2003,[13] 2013,[14] 2018,[15] and 2021.[16] The 2021 bloom, which killed three dozen manatees in Tampa Bay, also threatened to degrade important foraging habitat near a regional warm water refuge.[17]

While the science is less settled with respect to the impact of cyanotoxins on manatees, it is evident that cyanotoxins can have significant adverse effects on human health.[18] Exposure can result in gastrointestinal, dermatologic, respiratory, neurologic, and other symptoms.[19] Exposure from recreational water sources can occur through incidental ingestion or contact with the skin during activities like swimming, wading, and surfing as well as inhalation of aerosolized waterborne cyanotoxins.[20]

Scientists have also expressed increasing concern about the long-term health effects of cyanotoxin exposure.[21] These effects include potential exposure to waterborne β-methylamino-L-alanine (BMAA), which is derived from cyanotoxins.[22] Scientists have posited that exposure to

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11. *Manatee Mortality Event Along the East Coast: 2020-2022*, FLA. FISH & WILDLIFE CONSERVATION COMM'N, https://myfwc.com/research/manatee/rescue-mortality-response/ume/ [https://perma.cc/7N7R-49VM] (last visited Oct. 10, 2022).

12. FLA. FISH & WILDLIFE CONSERVATION COMM'N, 1996 FINAL RED TIDE MANATEE MORTALITIES 1–3 (2008), https://myfwc.com/media/11682/1996redtide_final14march08.pdf [https://perma.cc/P7RJ-WUJX].

13. FLA. FISH & WILDLIFE CONSERVATION COMM'N, 2003 FINAL MANATEE MORTALITIES 1–2 (2011), https://myfwc.com/media/11676/2003-fianl-red-tide-06-oct-2011.pdf.

14. FLA. FISH & WILDLIFE CONSERVATION, 2013 FINAL RED TIDE MANATEE MORTALITIES 1–6 (2015), https://myfwc.com/media/11667/2013redtide.pdf [https://perma.cc/3ERL-WTQ3].

15. FLA. FISH & WILDLIFE CONSERVATION COMM'N, 2018 FINAL RED TIDE MANATEE MORTALITIES, JAN 01 – DECEMBER 31 1–6 (2020), https://myfwc.com/media/24282/2018finalredtide.pdf [https://perma.cc/PY6S-FWGE].

16. FLA. FISH & WILDLIFE CONSERVATION COMM'N, 2021 PRELIMINARY RED TIDE MANATEE MORTALITIES, JAN 01 – DEC 31 1–2 (2021), https://myfwc.com/media/25649/2021preliminaryredtide.pdf [https://perma.cc/G6MF-6P89].

17. Justin Hobbs, *Seagrass Declines as Manatee Deaths Approach a Record*, WWSB (June 18, 2021, 8:37 PM), https://www.mysuncoast.com/2021/06/19/seagrass-declines-manatee-deaths-approach-record/ [https://perma.cc/YY29-NW3G].

18. *Health Effects from Cyanotoxins*, U.S. ENV'T PROT. AGENCY, https://www.epa.gov/cyanohabs/health-effects-cyanotoxins [https://perma.cc/Q6MP-QXWY] (last visited Feb. 3, 2023).

19. U.S. ENV'T PROT. AGENCY, EPA 822-P-16-002, HUMAN HEALTH RECREATIONAL AMBIENT WATER QUALITY CRITERIA OR SWIMMING ADVISORIES FOR MICROCYSTINS AND CYLINDROSPERMOPSIN (DRAFT) 4 (2016), https://www.epa.gov/sites/default/files/2016-12/documents/draft-hh-rec-ambient-water-swimming-document.pdf [https://perma.cc/JZ9L-534L].

20. *Id.* at 29–30, 35.

21. James S. Metcalf et al., *Public Health Responses to Toxic Cyanobacterial Blooms: Perspectives from the 2016 Florida Event*, 20 WATER POL'Y 919 *passim* (2018).

22. Maitham Ahmed Al-Sammak et al., *Co-Occurrence of the Cyanotoxins BMAA, DABA*

BMAA may increase one's risk of developing neurodegenerative diseases, such as Amyotrophic Lateral Sclerosis/Parkinsonism Dementia Complex (ALS/PDC).[23]

A key environmental driver influencing cyanotoxin production is nutrient pollution,[24] and nonpoint sources play a substantial role in nutrient pollution in many watersheds.[25] Among these nonpoint sources is agricultural runoff, which is an important contributor to nutrient pollution in many watersheds[26] and according to the EPA, is the leading source of water quality impacting the nation's lakes and rivers.[27]

As states are primarily responsible for regulating nonpoint source runoff under the Clean Water Act (CWA), they are also responsible for addressing HABs.[28] Despite the continuing harm HABs are inflicting on these fragile ecosystems, water-front communities, and local economies, most states have no water quality criteria specifically for cyanotoxins in surface waters, no drinking water standards specifically for cyanotoxins, and no quantitative guidelines for cyanotoxins in waters used for recreation.[29]

Further, where nonpoint source pollution is causing a violation of water quality standards, state water managers typically turn to total maximum daily loads (TMDLs).[30] TMDLs set a "pollution diet" for these

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and Anatoxin-a *in Nebraska Reservoirs, Fish, and Aquatic Plants*, 6 TOXINS 488, 490 (2014).

23. Sandra A. Banack et al., *The Cyanobacteria Derived Toxin Beta-N-Methylamino-L-Alanine and Amyotrophic Lateral Sclerosis*, 2 TOXINS 2837, 2837–50 (2010); P.K. Bienfang et al., *Prominent Human Health Impacts from Several Marine Microbes: History, Ecology, and Public Health Implications*, 2011 INT'L J. MICROBIOLOGY 1, 4; James S. Metcalf & Geoffrey A. Codd, *Cyanobacteria, Neurotoxins and Water Resources: Are There Implications for Human Neurodegenerative Disease?*, 10 AMYOTROPHIC LATERAL SCLEROSIS 74, 74–78 (2009); see Melanie Engstrom Newell et al., *Systematic and State-of the Science Review of the Role of Environmental Factors in Amyotrophic Lateral Sclerosis (ALS) or Lou Gehrig's Disease*, 817 SCI. OF TOTAL ENV'T 1, 2 (2022) (noting the suspected association between BMAA and ALS).

24. Hobbs, *supra* note 17.

25. Memorandum from Joel Beauvais, Deputy Assistant Adm'r, U.S. Env't Prot. Agency, to State Env't Comm'rs & State Water Dirs. 1, 2, 4 (Sept. 22, 2016) [hereinafter Memorandum from Joel Beauvais], https://www.epa.gov/sites/default/files/2016-09/documents/renewed-call-nutrient-memo-2016.pdf [https://perma.cc/M6GJ-B5MB].

26. *Id.* at 4.

27. U.S. ENV'T PROT. AGENCY, NATIONAL WATER QUALITY INVENTORY: 2000 REPORT 164 (2002), https://www.epa.gov/sites/default/files/2015-09/documents/2000_national_water_quality_inventory_report_to_congress.pdf [https://perma.cc/8QBS-TRS7].

28. 33 U.S.C. § 1342 (2019).

29. AM. WATER WORKS ASS'N, CYANOTOXINS IN US DRINKING WATER: OCCURRENCE, CASE STUDIES AND STATE APPROACHES TO REGULATION v–vii (2016), https://www.awwa.org/Portals/0/AWWA/ETS/Resources/Technical%20Reports/201609_Cyanotoxin_Occurrence_States_Approach[1].pdf?ver=2021-05-21-120259-770 [https://perma.cc/9G8X-LR3B].

30. 40 C.F.R. § 130.7(b)(5)(iv); *see* U.S. GOV'T ACCOUNTABILITY OFF., GAO-14-80, CLEAN WATER ACT: CHANGES NEEDED IF KEY EPA PROGRAM IS TO HELP FULFILL THE NATION'S WATER QUALITY GOALS 2 (2013) (describing a state's obligation under the CWA to develop

nutrients that, when followed, should reduce the occurrence of HABs.[31] To implement TMDLs, states most often rely on voluntary measures known as best management practices (BMPs) to reduce nutrient pollution from nonpoint sources.[32] Even with these measures in place, nutrient pollution continues to fuel HABs across the nation.[33]

Several legal scholars have examined the shortcomings of existing agricultural nonpoint source controls[34] and explored ways in which federal statutes and regulations could be strengthened to provide for greater federal oversight and enforcement options.[35] Further, some scholars have proposed integrated watershed planning approaches,[36] cost-sharing programs,[37] and regional treatment systems to better address these sources of pollution.[38]

TMDLs); INT'L JOINT COMM'N, A BALANCED DIET FOR LAKE ERIE: REDUCING PHOSPHORUS LOADINGS AND HARMFUL ALGAL BLOOMS 48 (2014) (describing why TMDLs are appropriate for most nonpoint sources); *see also* 33 U.S.C. § 1313(e) (2013) (noting that the CWA does not expressly require the implementation of a TMDL).

31. *See* INT'L JOINT COMM'N, *supra* note 30, at 48–49 (2014) (describing how TMDLs can be used to limit pollutants that may cause HABs).

32. Clean Water Act of 1972, 33 U.S.C. § 1288 (2018).

33. For example, Florida has relied on BMPs for more than two decades to achieve the TMDL for phosphorus in Lake Okeechobee. Yet there has been more than a three-fold average annual exceedance of Lake Okeechobee's TMDL. *See* S. FLA. WATER MGMT. DIST., 2019 SOUTH FLORIDA ENVIRONMENTAL REPORT 1459 app. 8B-1 (2019), https://apps.sfwmd.gov/sfwmd/SFER/2019_sfer_final/v1/v1.pdf [https://perma.cc/8JTM-5WSK]; WENDY D. GRAHAM ET AL., UNIV. FLA. WATER INST., OPTIONS TO REDUCE HIGH VOLUME FRESHWATER FLOWS TO THE ST. LUCIE AND CALOOSAHATCHEE ESTUARIES AND MOVE MORE WATER FROM LAKE OKEECHOBEE TO THE SOUTHERN EVERGLADES 63–64 (2015). Voluntary measures, such as BMPs, have been the hallmark of nonpoint source pollution management since 1972 even though there continues to be little empirical evidence on the relative effectiveness of such schemes. *See* Oliver A. Houck, *Cooperative Federalism, Nutrients, and the Clean Water Act: Three Cases Revisited*, 44 ENV'T L. REP. 10426, 10426 (2014).

34. Robin Rotman et al., *Realigning the Clean Water Act: Comprehensive Treatment of Nonpoint Source Pollution*, 48 ECOLOGY L.Q. 115, 115 (2021); William L. Andreen, *No Virtue Like Necessity: Dealing with Nonpoint Source Pollution and Environmental Flows in the Face of Climate Change*, 34 VA. ENV'T L.J. 255, 255 (2016); Dave Owen, *Conclusion: After the TMDLs*, 17 VT. J. ENV'T L. 845, 845 (2016); Mary Jane Angelo, *Maintaining a Healthy Water Supply While Growing a Healthy Food Supply: Legal Tools for Cleaning Up Agricultural Water Pollution*, 62 U. KAN. L. REV. 1003, 1003 (2014); Doug R. Williams, *When Voluntary, Incentive-Based Controls Fail: Structuring a Regulatory Response to Agricultural Nonpoint Source Water Pollution*, 9 WASH. U. J. L. & POL'Y 21, 21 (2002); Robert W. Adler, *Integrated Approaches to Water Pollution: Lessons from the Clean Air Act*, 23 HARV. ENV'T L. REV. 203, 203 (1999).

35. Rotman et al., *supra* note 34, at 153–58; Andreen, *supra* note 34, at 287–90; Williams, *supra* note 34, at 112–21; Adler, *supra* note 34, at 290–93.

36. Jamie Konopacky & Laurie Ristino, *The Healthy Watershed Framework: A Blueprint for Restoring Nutrient-Impaired Waterbodies Through Integrated Clean Water Act and Farm Bill Conservation Planning and Implementation at the Subwatershed Level*, 47 ENV'T L. 647 *passim* (2017).

37. Williams, *supra* note 34, at 120–21.

38. Angelo, *supra* note 34, at 1005.

While these positions are well taken (given decades of state inaction, resistance to stronger pollution reduction measures,[39] and the complexity of the problem), this Article instead focuses on recommendations for how states can improve a state's own statutory and regulatory frameworks to better manage nonpoint source runoff, achieve pollution reduction targets, and minimize the occurrence of HABs.

This Article begins with an overview of HABs, what causes them, and their environmental health impacts. Next, it examines what is driving the proliferation of HABs and the impacts they are having on local communities, economies, and ecosystems through a case study of Lake Okeechobee as well as the St. Lucie and Caloosahatchee estuaries. It follows with a discussion of the current regulatory framework in Florida and the resulting failures at the state level to control nonpoint source pollution, particularly in the Lake Okeechobee watershed. State water managers concede that, due to project delays and insufficient management strategies, nutrient load reductions in the watershed will likely not be achieved in the next twenty years.[40] This Article concludes with a set of recommended actions that Florida and other states can take to reduce nutrient pollution, improve water quality, and mitigate future HABs.

I. HARMFUL ALGAL BLOOMS

A. *Nutrient Pollution Is Fueling Harmful Algal Blooms Across the United States*

The U.S. Environmental Protection Agency (EPA) has stated:

> Nutrient pollution of water is one of America's most widespread, costly and challenging environmental problems, caused by excess nitrogen and phosphorus in the air and water. More than 100,000 miles of rivers and streams, close to 2.5 million acres of lakes, reservoirs and ponds, and more than 800 square miles of bays and estuaries in the United States have poor water quality because of nitrogen and phosphorus pollution.[41]

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39. OLIVER A. HOUCK, THE CLEAN WATER ACT TMDL PROGRAM: LAW, POLICY, AND IMPLEMENTATION 63 (2d ed. 2002).

40. FLA. DEP'T OF ENV'T PROT., 2020 LAKE OKEECHOBEE BASIN MANAGEMENT ACTION PLAN 15 (2020), https://publicfiles.dep.state.fl.us/DEAR/DEARweb/BMAP/NEEP_2020_Updates/Lake%20Okeechobee%20BMAP_01-31-20.pdf.

41. *EPA Issues Health Advisories to Protect Americans from Algal Toxins in Drinking Water*, U.S. ENV'T PROT. AGENCY (May 6, 2015), https://archive.epa.gov/epa/newsreleases/epa-issues-health-advisories-protect-americans-algal-toxins-drinking-water.html [https://perma.cc/3GJL-TAX3] [hereinafter *EPA Issues Health Advisories*].

According to a 2012 EPA study, approximately thirty-five percent of lakes have excessive levels of total nitrogen and forty percent of lakes have excessive levels of total phosphorus.[42] In 2015, EPA Administrator Gina McCarthy remarked, "Nutrient pollution and harmful algal blooms are among America's most serious and growing environmental challenges."[43]

As EPA explained in a 2016 memorandum to state environmental protection agencies and water managers, nutrient pollution is contributing to an increasing trend of HABs in surface waters across the nation.[44] According to the EPA, studies strongly suggest that "reductions in nutrient pollution are needed to stem eutrophication and cyanobacterial bloom expansion."[45] Unfortunately, states across the country have been unable or unwilling to effectively manage nutrient pollution, particularly from agriculture.[46]

Cyanobacteria are one of the world's oldest life forms.[47] Commonly referred to as "blue-green algae," they are not actually algae but rather photosynthetic bacteria that occur naturally in surface waters.[48] Under the right environmental conditions, cyanobacteria can reproduce rapidly and form cyanobacterial HABs.[49] Floating cyanobacterial cells can form a visibly colored scum on the water surface, which can be concentrated by the wind.[50]

Another type of HAB is "red tide," which is caused by the dinoflagellate *Karenia brevis*.[51] *K. brevis* can produce brevetoxins that

42. LAURA GATZ, CONG. RSCH. SERV., FRESHWATER HARMFUL ALGAL BLOOMS: CAUSES, CHALLENGES, AND POLICY CONSIDERATIONS 7 (2018).

43. *EPA Issues Health Advisories*, *supra* note 41.

44. Memorandum from Joel Beauvais, *supra* note 25, at 2.

45. *Id.* at 18.

46. *See* James S. Shortle et al., *Reforming Agricultural Nonpoint Pollution Policy in an Increasingly Budget-Constrained Environment*, 46 ENV'T SCI. & TECH. 1316, 1316 (2012) ("It has been well established that agricultural [nonpoint source pollution] policies are not having the desired outcomes."); *see also* STATE-EPA NUTRIENT INNOVATIONS TASK GRP., AN URGENT CALL TO ACTION 1 (2009), https://www.epa.gov/sites/default/files/documents/nitgreport.pdf [https://perma.cc/VG3J-5ABH] ("Current efforts to control nutrients have been . . . collectively inadequate at both a statewide and national scale.").

47. *Fossil Record of the Cyanobacteria*, UCMP BERKELEY, https://ucmp.berkeley.edu/bacteria/cyanofr.html [https://perma.cc/V3BC-6QD5] (last visited Feb. 3, 2023).

48. U.S. ENV'T PROT. AGENCY, *supra* note 19, at 1.

49. *Id*. at 3.

50. *Id*. at 17.

51. Donald M. Anderson et al., *Harmful Algal Blooms and Eutrophication: Examining Linkages from Selected Coastal Regions of the United States*, 8 HARMFUL ALGAE 39, 44 (2008).

kill fish,[52] make filter-feeding fish extremely toxic to other animals,[53] and cause respiratory and intestinal distress in humans.[54]

Sources contributing to red tide include nutrients in runoff, iron-rich atmospheric dust, dead marine life, and nutrient rich groundwater.[55] Nutrients including phosphorus and nitrogen from discharges, as well as marine life killed by cyanobacteria and decaying in waters, can stimulate red tide.[56] Cyanobacteria are frequently dominant in waters without detectable red tide, suggesting that they may play an important role in providing fuel to initiate red tide blooms.[57]

HABs threaten communities across the nation.[58] In 2011, Lake Erie experienced one of the largest cyanobacterial blooms in decades,[59] and

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52. Anne Rolton et al., *Effects of the Red Tide Dinoflagellate*, *Karenia Brevis*, *on Early Development of the Eastern Oyster Crassostrea Virginica and Northern Quahog Mercenaria Mercenaria*, 155 AQUATIC TOXICOLOGY 199, 199 (2014) [hereinafter Rolton et al., *Effects of the Red Tide*]; Anne Rolton et al., *Susceptibility of Gametes and Embryos of the Eastern Oyster*, *Crassostrea Virginica*, *to Karenia Brevis and Its Toxins*, 99 TOXICON 6, 6 (2015) [hereinafter Rolton et al., *Susceptibility of Gametes*]; Anne Rolton et al., *Effects of Field and Laboratory Exposure to the Toxic Dinoflagellate Karenia Brevis on the Reproduction of the Eastern Oyster*, *Crassostrea Virginia*, *and Subsequent Development of Offspring*, 57 HARMFUL ALGAE 13, 13 (2016) [hereinafter Rolton et al., *Effects of Field and Laboratory Exposure*]; John J. Walsh et al., *Isotopic Evidence for Dead Fish Maintenance of Florida Red Tides, with Implications for Coastal Fisheries over Both Source Regions of the West Florida Shelf and Within Downstream Waters of the South Atlantic Bight*, 80 PROGRESS IN OCEANOGRAPHY 51, 66 (2009).

53. Sharon M. Watkins et al., *Neurotoxic Shellfish Poisoning*, 6 MARINE DRUGS 431, 443 (2008).

54. Bienfang et al., *supra* note 22; *Illness Associated with Red Tide --- Nassau County, Florida, 2007*, CDC (July 4, 2008), https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5726a1.htm [https://perma.cc/BK8Q-NWDN]; Lora E. Fleming et al., *Initial Evaluation of the Effects of Aerosolized Florida Red Tide Toxins (Brevetoxins) in Persons with Asthma*, 113 ENV'T HEALTH PERSP. 650 *passim* (2005); J. Naar et al., *Brevetoxin Depuration in Shellfish via Production of Non-Toxic Metabolites: Consequences for Seafood Safety and the Environmental Fate of Biotoxins*, 10 HARMFUL ALGAE 488, 488 (2004).

55. Bienfang et al., *supra* note 23, at 3; J.J. Walsh et al., *Red Tides in the Gulf of Mexico: Where, When, and Why?*, 111 J. GEOPHYSICAL RSCH. 1, 5 (2006); Miles Medina et al., *Seasonal Dynamics of Terrestrially Sourced Nitrogen Influenced Karenia Brevis Blooms off Florida's Southern Gulf Coast*, 98 HARMFUL ALGAE 1, 1 (2020). *See generally* NAT'L ACADEMIES OF SCIS., ENG'G, & MED., PROGRESS TOWARD RESTORING THE EVERGLADES: THE EIGHTH BIENNIAL REVIEW – 2020 *passim* (2021) (discussing the contribution of groundwater to red tide).

56. Lynn Killberg-Thoreson et al., *Nutrients Released from Decaying Fish Support Microbial Growth in the Eastern Gulf of Mexico*, 38 HARMFUL ALGAE 40, 40 (2014); M.R. Mulholland et al., *Contribution of Diazotrophy to Nitrogen Inputs Supporting Karenia Brevis Blooms in the Gulf of Mexico*, 38 HARMFUL ALGAE 20, 20 (2014).

57. Kelly L. Jones et al., *Comparative Analysis of Bacterioplankton Assemblages from Karenia Brevis Bloom and Nonbloom Water on the West Florida Shelf (Gulf of Mexico, USA) Using 16S rRNA Gene Clone Libraries*, 73 FEMS MICROBIOLOGY ECOLOGY 468, 476 (2010).

58. GRAHAM ET AL., *supra* note 2, at 7.

59. *Toxic Algae Bloom in Lake Erie*, NASA EARTH OBSERVATORY (Oct. 14, 2011), https://earthobservatory.nasa.gov/images/76127/toxic-algae-bloom-in-lake-erie [https://perma.cc/6BNH-7MYU].

another bloom three years later caused the city of Toledo, Ohio, to issue a "do not drink" order for tap water that impacted more than half-a-million people for two days.[60] Both algal blooms could be seen from space.[61] In 2015, a 650-mile bloom in the Ohio River affected the drinking water supply of five million people and impacted recreational activities in five states.[62] In 2016, the city of Ingleside, Texas, issued a 13-day do-not-drink advisory for cyanotoxins in its drinking water.[63] In 2017, Lake Erie experienced yet another HAB, covering more than 700 square miles.[64] There were 169 reported algal blooms in the United States in 2017 alone.[65] In 2018, cyanotoxins from algal blooms in Oregon's Detroit Lake made it past the city of Salem's filtration plant and into the tap water, prompting the governor to declare a state of emergency and the Oregon National Guard to provide potable water to residents.[66] The State Health Department later issued an administrative order requiring nearly 100 water systems around the state to conduct bi-weekly testing for cyanotoxins.[67] In 2021, the city of West Palm Beach, Florida, issued a water advisory for vulnerable populations when cylindrospermopsin levels exceeded EPA health advisory levels.[68]

Making matters worse, climate change "will severely affect our ability to control blooms, and in some cases could make it near impossible."[69]

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60. GRAHAM ET AL., *supra* note 2, at 2.

61. *Toxic Algae Bloom in Lake Erie*, *supra* note 59; Douglas Main, *This Is Lake Erie's Toxic Algal Bloom as Seen from Space*, POPULAR SCI. (Aug. 5, 2019), https://www.popsci.com/article/science/lake-eries-toxic-algal-bloom-seen-space [https://perma.cc/C7M8-FQGA].

62. GRAHAM ET AL., *supra* note 2, at 2.

63. Memorandum from Joel Beauvais, *supra* note 25, at 2.

64. Jugal K. Patel & Yuliya Parshina-Kottas, *Miles of Algae Covering Lake Erie*, N.Y. TIMES (Oct. 3, 2017), https://www.nytimes.com/interactive/2017/10/03/science/earth/lake-erie.html [https://perma.cc/WHQ4-AY97].

65. Bill Walker & Emily Wathen, *Across U.S., Toxic Blooms Pollute Lakes*, ENV'T WORKING GRP. (May 15, 2018), https://www.ewg.org/toxicalgalblooms/ [https://perma.cc/2JHV-UKRP].

66. Dirk VanderHart, *Report: Salem Knew for Years that Algae Could Threaten Water*, NW. PUB. BROAD. (Sept. 17, 2018), https://www.nwpb.org/2018/09/17/report-salem-knew-for-years-that-algae-could-threaten-water/ [https://perma.cc/4MNS-5XDN].

67. Dirk VanderHart, *Nearly 100 Oregon Water Systems Will Test for Toxins Plaguing Salem's Water*, OPB (June 29, 2018, 5:50 PM), https://www.opb.org/news/article/oregon-algae-toxins-salem-water/ [https://perma.cc/6YUZ-GGU2].

68. *Drinking Water Advisory*, W. PALM BEACH (May 28, 2021, 10:18 AM), https://www.wpb.org/Home/Components/News/News/1699/16 [https://perma.cc/9TXC-ZHXX].

69. Karl E. Havens & Hans W. Paerl, *Climate Change at a Crossroad for Control of Harmful Algal Blooms*, 49 ENV'T SCI. & TECH. 12605, 12605 (2015); U.S. ENV'T PROT. AGENCY, IMPACTS OF CLIMATE CHANGE ON THE OCCURRENCE OF HARMFUL ALGAL BLOOMS 1–2 (May 2013), https://www.epa.gov/sites/default/files/documents/climatehabs.pdf [https://perma.cc/N8XH-E8N3]; Karl E. Havens, *Climate Change and the Occurrence of Harmful Microorganisms in Florida's Ocean and Coastal Waters*, UNIV. FLA. IFAS EXTENSION (Mar. 7, 2018), https://edis.ifas.ufl.edu/publication/sg136 [https://perma.cc/7ERB-NKTZ]; Karl E. Havens, *The*

Favorable conditions for blooms include warm waters, changes in salinity, increases in atmospheric carbon dioxide concentrations, changes in rainfall patterns that intensify coastal upwelling, sea level rise, and high nutrient levels—all issues exacerbated by climate change.[70]

B. *Harmful Agal Blooms Can Have Significant Impacts on Human Health*

Cyanobacteria have been known to have adverse impacts on human health for more than 100 years.[71] Exposure can occur through various recreational and non-recreational pathways.[72] Recreational activities are responsible for about half of reported cyanotoxin poisonings in people.[73] Nonrecreational exposure can occur through the consumption of cyanotoxin-contaminated drinking water and food and during bathing or showering.[74] According to the EPA, exposures can result in gastrointestinal, dermatologic, respiratory, neurologic, and other symptoms.[75]

The non-protein amino acid β-methylamino-L-alanine (BMAA) is a cyanobacteria-derived toxin that has been linked to Amyotrophic Lateral Sclerosis/Parkinsonism Dementia Complex (ALS/PDC).[76] BMAA has been documented in recreational waters throughout the world[77] and can bioaccumulate in different organisms up the food chain, presenting an increased risk to human health.[78]

Future of Harmful Algal Blooms in Florida Inland and Coastal Waters, UNIV. FLA. IFAS EXTENSION (Feb. 25, 2018), https://edis.ifas.ufl.edu/publication/SG153 [https://perma.cc/7DX2-MWNQ]; Brian Moss et al., *Allied Attack: Climate Change and Eutrophication*, 1 INLAND WATERS 101, 101 (2011); Hans W. Paerl & Jef Huisman, *Blooms Like It Hot*, 320 SCI. MAG. 57 (2008) [hereinafter Paerl & Huisman, *Blooms*]; Hans W. Paerl & Jef Huisman, *Climate Change: A Catalyst for Global Expansion of Harmful Cyanobacterial Blooms*, 1 ENV'T MICROBIOLOGY REPS. 27, 27 (2009) [hereinafter Paerl & Huisman, *Climate Change*]; LAURA GATZ, CONG. RSCH. SERV., R44871, FRESHWATER HARMFUL ALGAL BLOOMS: CAUSES, CHALLENGES, AND POLICY CONSIDERATIONS *passim* (2018).

70. U.S. ENV'T PROT. AGENCY, *supra* note 69.

71. WORLD HEALTH ORG., GUIDELINES FOR DRINKING-WATER QUALITY 95 (2d ed. 1998).

72. *Harmful Algal Bloom (HAB)-Associated Illness, Exposure*, CDC (2022), https://www.cdc.gov/habs/exposure-sources.html#:~:text=Harmful%20algal%20blooms%20caused%20by,or%20use%20contaminated%20drinking%20water [https://perma.cc/Q8VV-TVWW].

73. *Id.*

74. U.S. ENV'T PROT. AGENCY, *supra* note 19, at 1.

75. *Id.* at 4.

76. Banack et al., *supra* note 23, at 2838; Bienfang et al., *supra* note 23, at 4.

77. Banack et al., *supra* note 23, at 2840.

78. Larry E. Brand, *Human Exposure to Cyanobacteria and BMAA*, 10 AMYOTROPHIC LATERAL SCLEROSIS 85, 87 (2009).

People generally do not become aware of the presence of red tide until it results in fish kills,[79] shellfish toxicity, and respiratory distress.[80] The brevetoxins can also become aerosolized, causing respiratory distress when inhaled.[81]

C. *Harmful Algal Blooms Harm Fish and Wildlife*

HABs may have both direct and indirect impacts to fish and wildlife at all levels of the food chain.[82] In 2010, a team of researchers led by scientists at the California Department of Fish and Game and the University of California, Santa Cruz, published a study on the harmful effects of microcystin on sea otters.[83] It was the first study to establish a connection between freshwater contamination by microcystin and marine mammal mortality.[84] The team reported the deaths of at least twenty-one California sea otters (a federally listed threatened species) linked to microcystin intoxication.[85] Contaminated marine bivalves were implicated as the most likely source of hepatotoxins for wild otters that were recovered near river mouths and harbors.[86]

Mass mortality events from HABs have been reported on almost every continent.[87] A 2018 study examined dolphins in Florida's St. Johns River watershed that became stranded and died.[88] The researchers found that

79. Philip M Gravinese et al., *The Effects of Red Tide (Karenia Brevis) on Reflex Impairment and Mortality of Sublegal Florida Stone Crabs, Menippe Mercenaria*, 137 MARINE ENV'T RSCH. 145, 145–47 (2018).

80. Bienfang et al., *supra* note 23; Richard H. Pierce et al., *Compositional Changes in Neurotoxins and Their Oxidative Derivatives from the Dinoflagellate, Karenia Brevis, in Seawater and Marine Aerosol*, 33 J. PLANKTON RSCH. 343, 343–44 (2011).

81. Kirkpatrick et al., *Aerosolized Red Tide Toxins (Brevetoxins) and Asthma: Continued Health Effects After 1 Hour Beach Exposure*, 10 HARMFUL ALGAE 138, 138 (2011).

82. Elizabeth D. Hillborn & Val R. Beasley, *One Health and Cyanobacteria in Freshwater Systems: Animal Illnesses and Deaths are Sentinel Events for Human Health Risks*, 7 TOXINS 1374 *passim* (2015).

83. Stephens, *supra* note 3; Miller et al., *supra* note 3.

84. Miller et al., *supra* note 3, at 8.

85. *Id*. at 10.

86. *Id*.

87. Hillborn & Beasley, *supra* note 82, at 1379; *see* Rastogi et al., *supra* note 6, at 1255 (discussing mass wildlife mortalities in Kenya, Tanzania, and Spain); *see also* Michele Burford, *Here's What Causes Algal Blooms, and How We Can Stop Them*, THE INERTIA (Jan. 26, 2019), https://www.theinertia.com/environment/heres-what-causes-algal-blooms-and-how-we-can-stop-them/ [https://perma.cc/AD2A-W872] (describing a HAB impacting a 1,700-kilometer stretch of the Murray River in Australia in 2016, and a one-million fish kill in the Murray Darling Basin in 2019).

88. Amber Brown et al., *Detection of Cyanotoxins (Microcystins/Nodularins) in Livers from Estuarine and Coastal Bottlenose Dolphins (Tursiops Truncatus) from Northeast Florida*, 76 HARMFUL ALGAE 22, 22 (2018).

both estuarine and coastal dolphins were exposed to microcystins, with potential toxic and immune health impacts.[89]

BMAA concentrations in animals exposed to cyanobacteria have also been observed in Florida, including high concentrations in fish in the Caloosahatchee River.[90] In a recently published study, researchers at the University of Miami were the first to show detectable levels of BMAA in bottlenose dolphin brains that also displayed degenerative damage similar to Alzheimer's, ALS, and Parkinson's disease in humans.[91]

Red tide has also been linked to land mammal and bird mortality[92] and can bioaccumulate.[93] Exposed fish and seagrasses can accumulate high concentrations of brevetoxins and act as toxin vectors to dolphins and manatees.[94]

D. *Harmful Algal Blooms Threaten Livestock and Pets*

George Francis first documented the toxic effects of a cyanobacteria bloom in an 1878 study of livestock deaths in Lake Alexandria, Australia.[95] Every inhabited continent continues to report deaths related to cyanobacteria,[96] and large numbers of livestock die every year in southern Africa from ingesting cyanotoxins.[97]

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89. *Id*.

90. Larry E. Brand et al., *Cyanobacteria Blooms and the Occurrence of the Neurotoxin beta-N-methylamino-L-alanine (BMAA) in South Florida Aquatic Food Webs*, 9 HARMFUL ALGAE 620, 629 (2010).

91. Jenny Staletovich, *Dolphins Poisoned by Algae Also Showed Signs of Alzheimer's-Like Brain Disease*, MIA. HERALD (Mar. 20, 2019), https://www.miamiherald.com/news/local/environment/article228126094.html; David A. Davis et al., *Cyanobacterial Neurotoxin BMAA and Brain Pathology in Stranded Dolphins*, 14 PLOS ONE 1, 7 (2019).

92. Kevin T. Castle et al., *Coyote (Canis Latrans) and Domestic Dog (Canis Familiaris) Mortality and Morbidity Due to a Karenia Brevis Red Tide in the Gulf of Mexico*, 49 J. WILDLIFE DISEASES 955, 955 (2013); Christine Kreuder et al., *Clinicopathologic Features of Suspected Brevetoxicosis in Double-Crested Cormorants (Phalacrocorax Auritus) Along the Florida Gulf Coast*, 33 J. ZOO & WILDLIFE MED. 8, 8 (2002).

93. Michael Echevarria et al., *Effects of Karenia Brevis on Clearance Rates and Bioaccumulation of Brevetoxins in Benthic Suspension Feeding Invertebrates*, 106–07 AQUATIC TOXICOLOGY 85 (2012).

94. Leanne J. Flewelling et al., *Red Tides and Marine Mammal Mortalities: Unexpected Brevetoxin Vectors May Account for Deaths Long After or Remote from an Algal Bloom*, 435 NATURE 755, 755 (2005).

95. Ian Stewart et al., *Cyanobacterial Poisoning in Livestock, Wild Mammals and Birds – An Overview*, *in* 619 CYANOBACTERIAL HARMFUL ALGAL BLOOMS: STATE OF THE SCIENCE AND RESEARCH NEEDS, ADVANCES IN EXPERIMENTAL MEDICINE AND BIOLOGY 614 (H. Kenneth Hudell ed., 2008); Brand, *supra* note 78.

96. Stewart et al., *supra* note 95.

97. Mxolisi G. Masango et al., *Assessment of Microcystis Bloom Toxicity Associated with Wildlife Mortality in the Kruger National Park, South Africa*, 46 J. WILDLIFE DISEASES 95, 95 (2010).

Pets can be exposed to higher concentrations of cyanotoxins than humans because they are known to consume cyanobacterial scum and drink contaminated water.[98] Dogs are particularly at risk because they may lick cyanobacterial cells from their fur after swimming in water impacted by a HAB,[99] and a number of dogs die each year from cyanotoxin poisoning.[100] The EPA believes the impacts on domestic and companion animals are likely under-recognized because many cases are misdiagnosed, few cases are biochemically confirmed, and even fewer are reported in scientific literature.[101] In 2016, the Centers for Disease Control and Prevention launched the One Health Harmful Algal Bloom System as part of its National Outbreak Reporting System, which allows states to report animal cases in addition to human illnesses.[102]

E. *Harmful Algal Blooms Cause Significant Economic Impacts*

Nutrient pollution and HABs can have significant impacts to state and local economies, including loss of recreational revenue; impacts to commercial fisheries, recreational fishing, and tourism; decreased property values, and increased drinking-water treatment costs.[103] A 2009 study estimated 2.2 billion dollars of annual losses in recreational water usage, waterfront real estate, and spending on recovery of threatened and endangered species as a result of eutrophication in U.S. freshwaters.[104] As the EPA explains, "[f]ishing and shellfish industries are hurt by harmful algal blooms that kill fish and contaminate shellfish. Annual losses to these industries from nutrient pollution are estimated to be in the tens of millions of dollars."[105]

Lake Erie serves as a telling example of the crippling economic impact cyanobacteria blooms can have on local communities. A preliminary study on the economic impacts of a 2014 HAB in Lake Erie estimates losses of forty-three million dollars in recreation and tourism, eighteen

98. U.S. ENV'T PROT. AGENCY, *supra* note 19, at 77.

99. *Id.*

100. Lorraine C. Backer et al., *Canine Cyanotoxin Poisonings in the United States (1920s-2012): Review of Suspected and Confirmed Cases from Three Data Sources*, 5 TOXINS 1597, 1597 (2013).

101. U.S. ENV'T PROT. AGENCY, *supra* note 19, at 75.

102. R. Scott Nolen, *A One-Health Solution to the Toxic Algae Problem*, JAVMA NEWS (Apr. 15, 2018), https://www.avma.org/javma-news/2018-04-15/one-health-solution-toxic-algae-problem [https://perma.cc/C735-HZXW].

103. GRAHAM ET AL., *supra* note 2; Dodds et al., *supra* note 4.

104. Wayne W. Carmichael & Gregory L. Boyer, *Health Impacts from Cyanobacteria Harmful Algae Blooms: Implications for the North American Great Lakes*, 54 HARMFUL ALGAE 194, 207–12 (2016).

105. *Nutrient Pollution, The Effects: Economy*, U.S. ENV'T PROT. AGENCY, https://www.epa.gov/nutrientpollution/effects-economy [https://perma.cc/LT59-X5GB] (last visited Feb. 4, 2023).

million dollars in property values, and four million dollars in costs associated with treating drinking water.[106] Large, summer-long blooms resulted in 3,600 fewer fishing licenses being issued and cost counties adjacent to Lake Erie an estimated 5.58 million dollars in lost fishing expenditures.[107] Researchers have estimated that there would be over 2 million dollars in economic losses if sixty-seven Lake Erie beaches were closed for just one day.[108] There was "up to a $2,025 . . . increase" in individual home prices when algal levels were reduced."[109]

Red tide can also have debilitating economic impacts. In 2000, Galveston County, Texas, experienced a 21.3 to 24.6 million dollar economic impact from red tide due to fishery closures, loss tourism, and the costs of beach cleanup.[110] Red tide contributed to nearly 50 million dollars of loss in income in Maine in 2005.[111] In 2011, oyster landings dropped by more than 10.3 million dollars in Texas due to red tide.[112] Five million dollars in federal disaster relief was appropriated by the U.S. Commerce Department to address red tide impacts in Maine, New Hampshire, and Massachusetts.[113]

II. FLORIDA'S HARMFUL ALGAL BLOOMS: A CASE STUDY

Some of the largest and most destructive HABs in the United States have occurred in Florida's Lake Okeechobee.[114] These blooms have increased in their frequency, intensity, and duration over the last decade.[115] The lake's shallow depth, along with nutrient runoff and warm

106. GRAHAM ET AL., *supra* note 2, at 3.

107. *Hitting Us Where It Hurts: The Untold Story of Harmful Algal Blooms*, NOAA, https://noaa.maps.arcgis.com/apps/Cascade/index.html?appid=9e6fca29791b428e827f7e9ec095a3d7 [https://perma.cc/WA25-JUFN] (last visited Feb. 4, 2023).

108. *Id*.

109. *Id.*

110. *Id.*

111. *Id*

112. *Id.*

113. *Hitting Us Where It Hurts*, *supra* note 107.

114. Cynthia Ann Heil & Amanda Lorraine Muni-Morgan, *Florida's Harmful Algal Bloom (HAB) Problem: Escalating Risks to Human, Environmental and Economic Health with Climate Change*, 9 FRONTIERS ECOLOGY & EVOLUTION 3, 5, 16 (2021).

115. S. FLA. WATER MGMT. DIST., CENTRAL EVERGLADES PLANNING PROJECT POST AUTHORIZATION CHANGE REPORT: FEASIBILITY STUDY AND DRAFT ENVIRONMENTAL IMPACT STATEMENT 2-3 (2018); Karl Havens, *What Is Causing Florida's Algae Crisis? 5 Questions Answered*, UNIV. FLA. NEWS: SCI. & WELLNESS (Aug. 10, 2018), https://news.ufl.edu/articles/2018/08/what-is-causing-floridas-algae-crisis-5-questions-answered.html [https://perma.cc/95A6-68A7]; Joyce Zhang & Zach Welch, *Lake Okeechobee Watershed Research and Water Quality Monitoring Results and Activities*, *in* 2018 SOUTH FLORIDA ENVIRONMENTAL REPORT 8B-1 (2018).

water temperatures, provide ideal conditions for HABs.[116] Water management decisions have further exacerbated the problems by sending algae-laden water to sensitive coastal estuaries.[117] These discharges have had a significant impact on the ecology of these estuaries and inflicted significant economic losses upon regional commercial fishing, recreation, tourism, and the real estate sectors.[118] The proliferation of HABs in the region also threatens the multi-billion dollar federal and state plan to restore America's Everglades.[119]

A. *Water Management Decisions Have Compromised the Ecological Health of the Greater Everglades Ecosystem*

Encompassing 730 square miles, Lake Okeechobee is the largest lake in the southeastern United States.[120] The lake is home to sport and commercial fisheries[121] and serves as a critical habitat for the federally endangered snail kite.[122]

To the west is the Caloosahatchee River, which flows for seventy miles from Lake Okeechobee to the Gulf of Mexico.[123] The river and estuary are home to the only known pupping grounds of the federally endangered smalltooth sawfish.[124] The area is an important warm water refuge for the federally threatened Florida manatee, and four species of sea turtles listed under the Endangered Species Act, which frequent the

116. Karl Havens, *Deep Problems in Shallow Lakes: Why Controlling Phosphorus Inputs May Not Restore Water Quality*, 2013 EDIS 1, 1–4 (Jan. 2013), https://journals.flvc.org/edis/article/view/120491/118903 [https://perma.cc/PP77-Q7DM]; Karl E. Havens et al., *Natural Climate Variability Can Influence Cyanobacteria Blooms in Florida Lakes and Reservoirs*, UNIV. FLA. IFAS EXTENSION (Dec. 10, 2019), https://edis.ifas.ufl.edu/publication/SG142 [https://perma.cc/E4Y7-RHWZ].

117. Havens, *supra* note 115; Zhang & Welch, *supra* note 115.

118. *Nutrient Pollution, The Effects: Economy*, *supra* note 105.

119. NAT'L ACADEMIES OF SCIS., ENG'G, & MED., PROGRESS TOWARD RESTORING THE EVERGLADES: THE FOURTH BIENNIAL REVIEW – 2012 xi (2012), http://www.nap.edu/catalog/13422/progress-toward-restoring-the-everglades-the-fourth-biennial-review-2012 [https://perma.cc/CV84-EZGL].

120. *Lake Okeechobee*, S. FLA. WATER MGMT. DIST., https://www.sfwmd.gov/our-work/lake-okeechobee [https://perma.cc/X22G-GKQL] (last visited Feb. 4, 2023).

121. *Id.*

122. 50 C.F.R. § 17.95(b) (2022).

123. FLA. DEP'T OF ENV'T PROT., WATER QUALITY ASSESSMENT REPORT: CALOOSAHATCHEE 230 (2005), https://www.sfwmd.gov/sites/default/files/documents/06-Caloos%20River%20Basin%20Report%20FDEP.pdf [https://perma.cc/P56N-YXRB].

124. NAT'L MARINE FISHERIES SERV., NAT'L OCEANIC & ATMOSPHERIC ADMIN., SMALLTOOTH SAWFISH RECOVERY PLAN (PRISTIS PECTINATE) I-19 (2009), https://www.floridamuseum.ufl.edu/wp-content/uploads/sites/80/2017/05/STSRecovery_Plan_Final_011309.pdf.

estuary and the nearby Gulf of Mexico.[125] Five national wildlife refuges also lie within the Caloosahatchee River and Estuary.[126]

To the east is the thirty-five milelong St. Lucie River.[127] Historically, the river was a freshwater stream that flowed into the IRL, but in 1892, residents dredged an inlet to establish a more permanent connection to the Atlantic Ocean.[128] In 1928, the state completed construction of the C-44 canal to connect Lake Okeechobee to the South Fork of the River.[129] Water from Lake Okeechobee flows through the C-44 canal and east into the St. Lucie River, which flows into the IRL.[130] The IRL is recognized as one of the most diverse estuaries in North America with more than 4,300 plants and animals.[131] Sea turtles, smalltooth sawfish, and manatees rely on these waters for warm water refuge, fresh water, and other essential habitat functions.[132] Boulder star, elkhorn, and staghorn coral are found off the coast near the estuary's outlet.[133] The lagoon also supports productive fisheries, tourism, and some of the only bioluminescent waters in the continental United States.[134]

Lake Okeechobee and the coastal estuaries are part of the Greater Everglades ecosystem, a system that stretches from Shingle Creek (just

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125. U.S. FISH & WILDLIFE SERV., CALOOSAHATCHEE NATIONAL WILDLIFE REFUGE 1 (2021), https://web.archive.org/web/20210502092307/https://www.fws.gov/southeast/pdf/fact-sheet/caloosahatchee-national-wildlife-refuge.pdf [https://perma.cc/5BA9-L7YV]; *Sea Turtle FAQ*, SANIBEL-CAPTIVA CONSERVATION FOUND. (Apr. 11, 2017), http://www.sccf.org/our-work/sea-turtles/sea-turtle-faq [https://perma.cc/LM9F-7WJD]. The four sea turtle species include the loggerhead, green, Kemp's ridley, and leatherback. *Sea Turtle FAQ*, *supra*.

126. These refuges are the J.N. "Ding" Darling National Wildlife Refuge, Pine Island National Wildlife Refuge, Matlacha Pass National Wildlife Refuge, Island Bay National Wildlife Refuge, and Caloosahatchee National Wildlife Refuge.

127. S. FLA. WATER MGMT. DIST., FOCUS ON THE ST. LUCIE RIVER 2, https://www.sfwmd.gov/sites/default/files/documents/stlucie.pdf [https://perma.cc/4Y5S-Z7LR].

128. *Id.*

129. *Id.* at 4.

130. FLA. DEP'T OF TRANSP., 2015 FLORIDA WATERWAYS SYSTEM PLAN 2-43, 2-53 (2016), https://www.fdot.gov/docs/default-source/seaport/pdfs/2015-Florida-Waterways-System-Plan_Final.pdf [https://perma.cc/LQ87-ZB8H].

131. Cheryl Lyn Dybas, *Florida's Indian River Lagoon: An Estuary in Transition*, 52 BIOSCIENCE 554–59 (2002); *Ecology of the Indian River Lagoon*, FLA. STATE PARKS, https://www.floridastateparks.org/learn/ecology-indian-river-lagoon [https://perma.cc/49HM-9XBW] (last visited Feb. 4, 2023).

132. David W. Laist, *Influence of Power Plants and Other Warm-Water Refuges on Florida Manatees*, 21 MARINE MAMMAL SCI. 739, 764 (2005); T. DeLene Beeland, *Conserving Florida's Smalltooth Sawfish*, FLA. MUSEUM SCI. (Oct. 1, 2008), https://www.floridamuseum.ufl.edu/science/conserving-floridas-smalltooth-sawfish/ [https://perma.cc/S5QU-3T35]; *About the Area*, SEA TURTLE PRES. SOC'Y, https://seaturtlespacecoast.org/about-us/about-the-area/ [https://perma.cc/R857-RYU8] (last visited Feb. 4, 2023).

133. *SAJ-2017-02459 (SP-JLC)*, U.S. ARMY CORPS OF ENG'RS (Sept. 18, 2017), https://www.saj.usace.army.mil/DesktopModules/ArticleCS/Print.aspx?PortalId=44&ModuleId=16633&Article=1315263 [https://perma.cc/LZV5-962Y].

134. *Ecology of the Indian River Lagoon*, *supra* note 131.

south of Orlando) to Florida Bay, comprising a mosaic of sawgrass marshes, freshwater ponds and sloughs, prairies, and forested uplands.[135]

More than a century ago, efforts were made to drain the region for development, agricultural production, and subsequent flood control.[136] Beginning in the 1940s, the U.S. Army Corps of Engineers constructed a series of canals, levees, and other structures that forever changed the natural flow of the Everglades.[137] In 1948, Congress created the Central and South Florida Project, the largest civil works project in the country, to protect agricultural interests and communities from flooding south of Lake Okeechobee.[138]

This network of canals, levees, and water control structures has fundamentally altered the ecosystem, and today the Everglades is half the size it was a hundred years ago.[139] Historically, water traveling through the system would take six to eight months to travel from the northern part of the system to Lake Okeechobee,[140] but due to the channelization of the system and upstream agriculture, water now arrives at the lake in one month.[141] This channelization, coupled with the diking of the south side of the lake, which cuts off natural flow to the Everglades, causes lake levels to rise rapidly and forces the Corps to release large volumes of water into the Caloosahatchee and St. Lucie estuaries and ultimately out to sea, instead of letting those waters flow naturally over the south rim of the lake into the southern Everglades.[142] When there is a drought, water managers hold water in Lake Okeechobee and cut off the natural flow into the Caloosahatchee River.[143]

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135. *Everglades*, S. FLA. WATER MGMT. DIST., https://www.sfwmd.gov/our-work/everglades [https://perma.cc/CEV9-3MMY] (last visited Feb. 6, 2023).

136. *History*, S. FLA. WATER MGMT. DIST., https://www.sfwmd.gov/who-we-are/history [https://perma.cc/6NCL-TNCP] (last visited Feb. 6, 2023).

137. *Id.*

138. *Id.*

139. *Everglades*, *supra* note 135.

140. FLA. OCEANOGRAPHIC SOC'Y, THE EVERGLADES & NORTHERN ESTUARIES; ST. LUCIE RIVER ESTUARY, INDIAN RIVER LAGOON & CALOOSAHATCHEE ESTUARY: WATER FLOWS & CURRENT ISSUES 2 (Aug. 20, 2013), https://www.floridaocean.org/sites/default/files/documents/PDFS/gov-scott-8-20-13.pdf [https://perma.cc/C37K-8P8S].

141. AUDUBON FLA., THE LAKE OKEECHOBEE ECOSYSTEM: A DELICATE BALANCE OF WATER 1 (June 2014), https://fl.audubon.org/sites/default/files/audubon_lakeokeechobee_factsheet_june2014_0.pdf [https://perma.cc/V3VK-KFHA].

142. GRAHAM ET AL., *supra* note 33, at 111.

143. *E.g.*, Chad Gillis, *Lake Okeechobee Levels Continue to Drop as Corps Slows Flows to Caloosahatchee River*, NEWS-PRESS (Apr. 9, 2020, 4:50 PM), https://www.news-press.com/story/tech/science/environment/2020/04/09/water-managers-cut-flows-caloosahatchee-lake-o-levels-continue-drop/5120888002/ [https://perma.cc/96X4-B2Z2] (describing how Lake Okeechobee dropped to 11.6 feet above sea level in April 2020, which prompted agencies to cut flows to the Caloosahatchee River).

The Corps' discharges of water from Lake Okeechobee are governed by the Lake Okeechobee Regulation Schedule (LORS).[144] LORS directs the Corps to maintain lake levels between 12.5 and 15.5 feet surface elevation to protect communities and agricultural fields to the south from flooding, provide agricultural and municipal water supplies during the dryer months, and protect the lake's ecology.[145] LORS is expected to be in effect until at least early 2023, and then a new regulation schedule known as the Lake Okeechobee System Operations Manual (LOSOM) will go into effect.[146]

B. *Nonpoint Source Pollution Has Degraded the Water Quality of the Northern Everglades*

In addition to the plumbing problem, the water entering Lake Okeechobee is dirty. Contaminants from agriculture, industry, and urban areas have polluted historically pristine waters with phosphorous, nitrogen, and mercury.[147] For the past several decades, phosphorus imported into the basin, primarily to improve agricultural production as a fertilizer, has largely accumulated in soils and sediments.[148] This "legacy phosphorus" has become a constant source of additional phosphorus loading to the lake and estuaries.[149]

Between water years 2014 and 2018, the five-year average annual load of total phosphorus to Lake Okeechobee was 633 metric tons per year, which is 493 metric tons more than the water quality goal of 140 metric tons per year.[150] The majority of these nutrients entered the watershed from agricultural and urban sources.[151] There have been no significant reductions in phosphorus loading into the Lake Okeechobee

144. U.S. ARMY CORPS OF ENG'RS, FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT: LAKE OKEECHOBEE REGULATION SCHEDULE *passim* (2007), https://www.saj.usace.army.mil/Portals/44/docs/h2omgmt/LORSdocs/ACOE_STATEMENT_APPENDICES_A-G.pdf [https://perma.cc/ 86HE-2BCU].

145. GRAHAM ET AL., *supra* note 33, at 17.

146. *Lake Okeechobee System Operating Manual (LOSOM)*, MARTIN CNTY. FLA., https://www.martin.fl.us/LOSOM [https://perma.cc/32C3-CK26] (last visited Feb. 6, 2023); *Breaking Down: L.O.S.O.M.*, EVERGLADES FOUND., https://www.evergladesfoundation.org/post/breaking-down-losom [https://perma.cc/8X59-BF2C] (last visited Feb. 6, 2023); *see* Damon Scott, *Release of Lake Okeechobee Draft Plan Delayed, Seminole Tribune* (May 13, 2022), https://seminoletribune.org/release-of-lake-okeechobee-draft-plan-delayed/ [https://perma.cc/Y9MY-MLLY] ("A final plan expected to go into effect late this year is now set to be in place in early 2023.").

147. NAT'L ACADEMIES OF SCIS., ENG'G, & MED., *supra* note 119.

148. GRAHAM ET AL., *supra* note 33, at 63.

149. *Id.*

150. S. FLA. WATER MGMT. DIST., *supra* note 33, at 147, 1339, 1392 tbl.8B-8.

151. *Id.*

sub-watersheds,[152] despite several phosphorus reduction projects.[153] Lake Okeechobee has been a net sink, with more phosphorus entering the lake than leaving it.[154]

In addition to phosphorus, nitrogen is being delivered to Lake Okeechobee.[155] Increased usage of nitrogen fertilizers, urban and agricultural nitrogen wastes, and atmospheric nitrogen deposition has caused an increase in bioavailable nitrogen in receiving waters.[156] In Lake Okeechobee, the five-year rolling average total nitrogen load for water years 2014 to 2018 was 6,772 tons—a 470-ton increase from the 2013 to 2017 water year average.[157]

C. *Nutrient Pollution Has Fueled the Spread of HABs in Lake Okeechobee and the Northern Estuaries*

All the phosphorus and nitrogen entering the lake has helped fuel the spread of HABs.[158] The nutrient-rich water from Lake Okeechobee, coupled with high water temperatures, fuels the formation of algal blooms, which are then sent through canals and into the estuaries.[159]

The State of Florida has long been aware of the problem of nonpoint source pollution and the increasing threats posed by HABs. In 2008, the Florida Department of Environmental Protection (FDEP) remarked:

> Freshwater harmful algal blooms (HABs) are increasing in frequency, duration, and magnitude and therefore may be a significant threat to surface drinking water resources and recreational areas. Abundant populations of blue-green algae, some of them potentially toxigenic, have been found statewide in numerous lakes and rivers. In addition, measured concentrations of cyanotoxins—a few of them of above the suggested guideline levels—have been reported in finished water from some drinking water facilities.[160]

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152. FLA. DEP'T OF ENV'T. PROT., *supra* note 40.

153. NAT'L ACADEMIES OF SCIS., ENG'G, & MED., PROGRESS TOWARD RESTORING THE EVERGLADES: THE SIXTH BIENNIAL REVIEW – 2016 113 (2016).

154. *Id.* at 116.

155. GRAHAM ET AL., *supra* note 33, at 63.

156. Hans W. Paerl et al., *Algal Blooms: Noteworthy Nitrogen*, 346 SCI. 175, 175 (2014).

157. *See* S. FLA. WATER MGMT. DIST., *supra* note 33, at 1382 (documenting a seven percent increase in TN loading for water years 2014 to 2018).

158. *Id. passim*.

159. U.S. ENV'T PROT. AGENCY, *supra* note 19, at 28–29.

160. FLA. DEP'T OF ENV'T PROT., INTEGRATED WATER QUALITY ASSESSMENT FOR FLORIDA: 2008 305(B) REPORT AND 303(D) LIST UPDATE 37 (2008), http://publicfiles.dep.state.fl.us/DEAR/DEARweb/WAS/Integrated_Report/2008_Integrated_Report.pdf [https://perma.cc/47CL-D9K6] (italics omitted).

In 2010, FDEP similarly stated:

> [N]utrient loading and the resulting harmful algal blooms continue to be an issue. While the occurrence of blue-green algae is natural and has occurred throughout history, algal blooms caused by . . . nutrient loading from fertilizer use, together with a growing population and the resulting increase in residential landscapes, are an ongoing concern.[161]

Unsurprisingly, nutrient pollution, especially phosphorus and nitrogen, continues to plague Florida's waters. According to a 2018 FDEP report, of the 4,393 waterbody segments assessed in the state, 2,440 were impaired.[162] Of these impaired waters, 1,893 segments required a TMDL.[163] According to FDEP, "[t]he most frequently identified causes of impairment include [dissolved oxygen], fecal coliform, and nutrients."[164] The major sources of nitrogen and phosphorus pollution are generally the same as those found nationally: urban and suburban stormwater runoff, wastewater discharges, row crop agriculture, livestock production, and atmospheric deposition.[165] This pollution is fueled by an ever-increasing population.[166]

In 2005, following several strong tropical storms, toxic *Microcystis aeruginosa* (*M. aeruginosa*) blooms formed in Lake Okeechobee and were discharged downstream into the St. Lucie Estuary.[167] In June 2008, a toxic blue-green algal bloom occurred north of the Franklin Lock on the Caloosahatchee River and forced the temporary shut-down of the Olga Water Treatment Plant, which obtains its source water from the Caloosahatchee and provides drinking water for 30,000 people.[168] In 2013, after additional tropical storms, the Corps once again discharged *M. aeruginosa* blooms from Lake Okeechobee into the St. Lucie

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161. FLA. DEP'T OF ENV'T PROT., INTEGRATED WATER QUALITY ASSESSMENT FOR FLORIDA: 2010 305(B) REPORT AND 303(D) LIST UPDATE 24 (2010), http://publicfiles.dep.state.fl.us/DEAR/DEARweb/WAS/Integrated_Report/2010_Integrated_Report.pdf [https://perma.cc/Q29X-F5HB] (italics omitted).

162. FLA. DEP'T OF ENV'T PROT., FINAL INTEGRATED WATER QUALITY ASSESSMENT FOR FLORIDA: 2018 SECTIONS 303(D), 305(B), AND 314 REPORT AND LISTING UPDATE 17 (2018), https://floridadep.gov/sites/default/files/2018_integrated_report_master%20final_revised_3-12-19.pdf [https://perma.cc/978J-2QH3].

163. *Id.* at 18.

164. *Id.*

165. Water Quality Standards for the State of Florida's Estuaries, Coastal Waters, and South Florida Inland Flowing Waters, 77 Fed. Reg. 74924, 74930 (Dec. 18, 2012) (codified at 40 C.F.R. 131).

166. *Id.*

167. Preece et al., s*upra* note 5.

168. Water Quality Standards for the State of Florida's Estuaries, Coastal Waters, and South Florida Inland Flowing Waters, 77 Fed. Reg. 75762, 75769 (Dec. 18, 2012) (codified at 40 C.F.R. 131).

Estuary.[169] In 2016, a 239-square mile HAB occurred in Lake Okeechobee, during an almost year-long period of releases to the St. Lucie and the Caloosahatchee.[170] Beaches were closed, and the Florida Governor declared a state of emergency in Martin, St. Lucie, Palm Beach, and Lee Counties.[171] Heavy rain from Hurricane Irma in 2017, combined with above-average rainfall in May 2018, then set the stage for the 2018 Lake Okeechobee algal bloom, which was possibly the largest summer algal bloom in the lake's history.[172] During the 2018 bloom, the Corps discharged toxic algae-filled water into the St. Lucie and Caloosahatchee Estuaries.[173] Finding that the "release of water from Lake Okeechobee and increase in algae blooms, including overwhelming amounts of cyanobacteria (blue-green algae) which can produce hazardous toxins, has unreasonably interfered with the health, safety, and welfare of the State of Florida and its residents" in July 2018, the Governor again issued a state of emergency, this time in Glades, Hendry, Lee, Martin, Okeechobee, Palm Beach, and St. Lucie Counties.[174]

These nutrient-rich waters and cyanobacteria blooms may have a synergistic effect with red tide, amplifying the harm caused to marine life along Florida's coasts.[175] The cyanobacteria *synechococcus* is a potential prey source in nutrient-poor environments for red tide, and it has been detected in the Lake Okeechobee system.[176] Moreover, an ecosystem impacted by red tide is less resilient to cyanobacteria, and vice versa.[177]

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169. Preece et al., *supra* note 5.

170. U.S. ENV'T PROT. AGENCY, *supra* note 19, at 20, 28.

171. *Id*. at 28–29.

172. Lisa Krimsky et al., *A Response to Frequently Asked Questions About the 2018 Lake Okeechobee, Caloosahatchee and St. Lucie Rivers and Estuaries Algal Blooms*, UNIV. FLA. IFAS BLOGS, http://blogs.ifas.ufl.edu/extension/2018/07/10/algal-blooms-faq/ [https://perma.cc/5R87-YPNE] (last visited Feb. 8, 2023).

173. *Id.*; *Water Res. Dev. Acts: Status of Implementation & Assessing Future Needs: Hearing on Water Res. & Env't Before the H. Subcomm. on Transp. & Infrastructure*, 116th Cong. 29 (2019) (statement of Major Gen. Scott A. Spellmon, Deputy Commanding Gen. for Civ. & Emergency Operations, U.S. Army Corps of Eng'rs), https://www.congress.gov/116/chrg/CHRG-116hhrg40659/CHRG-116hhrg40659.pdf [https://perma.cc/H3JK-P2DA].

174. Fla. Exec. Order No. 18-191 (Emergency Management-Lake Okeechobee Discharge/Algae Blooms) (July 9, 2018), https://www.flgov.com/wp-content/uploads/2018/07/EO-18-191.pdf [https://perma.cc/ZQ7N-3VKX].

175. Patricia M. Glibert et al., *Grazing by Karenia Brevis on Synechococcus Enhances Its Growth Rate and May Help to Sustain Blooms*, 55 AQUATIC MICROBIAL ECOLOGY 17–30, (2009).

176. BARRY H. ROSEN ET AL., U.S. DEP'T OF THE INTERIOR, U.S. GEOLOGICAL SURV., CYANOBACTERIA OF THE 2016 LAKE OKEECHOBEE WATERWAY HARMFUL ALGAL BLOOM: OPEN-FILE REPORT 2017-1054 34 (2017), https://pubs.usgs.gov/of/2017/1054/ofr20171054.pdf [https://perma.cc/34GU-ZU2Z].

177. Medina et al., *supra* note 55.

Studies have detected a connection between nitrogen pollution flowing from the Caloosahatchee River to nearshore red tide in Florida.[178] In 2018, Florida experienced one of the worst red tides in a decade.[179] The bloom and resulting fish kills reached the Florida Panhandle and wrapped around the southern tip of Florida and up the Atlantic coast.[180] The Florida Fish and Wildlife Conservation Commission (FWC) reported in January 2019 that 589 sea turtles had died since red tide blooms started spreading across the Gulf Coast in 2017—the largest number of stranded sea turtles ever attributed to a single red tide event.[181] FWC also reported that red tide contributed to the deaths of 288 Florida manatees in 2018.[182]

III. REGULATORY FRAMEWORK FOR MANAGING HARMFUL ALGAL BLOOMS

A. *The Clean Water Act*

Fifty years ago, the nation was facing a water quality crisis: drinking water contained chemicals exceeding recommended limits, pollution forced the closure of shellfish beds, the discharge of polluted water was causing massive fish kills, and bacteria levels made waters unsafe to swim in.[183] Water pollution was costing the country billions of dollars every year.[184]

In 1972, Congress passed the Clean Water Act (CWA) "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."[185] The CWA provides a comprehensive framework for protecting the nation's water quality from both "point source" and "nonpoint source" pollution.[186]

A point source is "any discernable, confined, and discrete conveyance . . . from which pollutants are or may be discharged."[187] The

178. *Id.*; Miles Medina et al., *Nitrogen-Enriched Discharges from a Highly Managed Watershed Intensify Red Tide (Karenia Brevis) Blooms in Southwest Florida*, 827 SCI. OF TOTAL ENV'T 1, 1 (2022).

179. *See* Robert H. Weisberg et al., *The Coastal Ocean Circulation Influence on the 2018 West Florida Shelf K. Brevis Red Tide Bloom*, 124 J. GEOPHYSICAL RSCH.: OCEANS 2501, 2501 (2019) (attributing the intensity of the 2017 to 2018 red tide to ocean circulation).

180. Paul P. Murphy, *Red Tide is Spreading in Florida. Hurricane Michael Didn't Stop It*., CNN (Oct. 20, 2018), https://www.cnn.com/2018/10/18/us/red-tide-florida-hurricane-michael-trnd/index.html [https://perma.cc/JUY3-AVP4].

181. Jessica Meszaros, *Most Sea Turtle Deaths for Single Red Tide Event*, WLRN (Jan. 21, 2019), https://www.wlrn.org/post/most-sea-turtle-deaths-single-red-tide-event [https://perma.cc/RHR9-8UM8].

182. FLA. FISH & WILDLIFE CONSERVATION COMM'N, *supra* note 15, at 6.

183. ROBERT W. ADLER ET AL., THE CLEAN WATER ACT 20 YEARS LATER 5–6 (1993).

184. *Id.*

185. 33 U.S.C. § 1251(a) (1972).

186. *Id.*

187. *Id*. § 1362(14).

CWA prohibits the "discharge of any pollutant by any person" unless authorized by a permit.[188] A discharge is "any addition of any pollutant to navigable waters from any point source."[189] Point source pollution is controlled through permits issued under Section 402 of the CWA through the National Pollution Discharge Elimination System (NPDES) program.[190]

Nonpoint source pollution is "the type of pollution that arises from many dispersed activities or large areas, and is not traceable to any single discrete source."[191] These diffuse sources of pollution (like farms and roadways) are sources from which runoff drains into a watershed.[192] Nonpoint source pollution is the largest contributor to water quality degradation in the United States.[193] The EPA has determined that agricultural nonpoint discharges are the leading source of water quality impacts on the nation's lakes and rivers,[194] and the Agency has stated that "the vast majority of our nation's impaired waters have no possibility of being restored unless the nonpoint sources affecting those waters are effectively remediated."[195] Nonpoint source pollution is not subject to permitting like point source discharges, and the EPA plays a limited role in nonpoint source pollution.[196] Instead, under EPA oversight, the states manage nonpoint source pollution under Section 303 of the CWA.[197]

B. *The Florida Water Pollution Control Act*

States have statutory frameworks in place to help protect their waters from pollution and HABs and to implement the provisions of the CWA. In Florida, the state legislature passed the Florida Water Pollution Control Act in 1967 after finding that "[t]he pollution of the air and waters of this state constitutes a menace to public health and welfare; creates public nuisances; is harmful to wildlife and fish and other aquatic life; and impairs domestic, agricultural, industrial, recreational and other beneficial uses of air and water."[198] The State further declared that

188. *Id*. §§ 1311(a), 1342.

189. *Id*. § 1362(12).

190. *Id*. § 1342.

191. Nw. Env't Def. Ctr. v. Brown, 640 F.3d 1063, 1080 (9th Cir. 2011).

192. Am. Farm Bureau Fed'n v. U.S. Env't Prot. Agency, 792 F.3d 281, 289 (3d Cir. 2015).

193. U.S. ENV'T PROT. AGENCY, A NATIONAL EVALUATION OF THE CLEAN WATER ACT SECTION 319 PROGRAM 1, 4 (2011); HOUCK, *supra* note 39, at 60.

194. U.S. ENV'T PROT. AGENCY, *supra* note 26, at ES-3.

195. U.S. ENV'T PROT. AGENCY, *supra* note 193; HOUCK, *supra* note 39, at 4 (explaining that, while point source controls have helped reduce many sources of pollution from degrading the nation's waters, nonpoint sources of pollution "have bloomed like algae to swallow the gains" of the CWA over the years).

196. U.S. ENV'T PROT. AGENCY, *supra* note 193.

197. *Id.*; *Am. Farm Bureau Fed'n*, 792 F.3d at 289.

198. FLA. STAT. § 403.021(1) (2020).

"[c]ontrol, regulation, and abatement of the activities which are causing or may cause pollution of the air or water resources in the state . . . *be increased*" to protect human health and the natural environment.[199]

Following its enactment in 1967, the Florida Water Pollution Act was amended to implement the state's water quality responsibilities under the CWA.[200] Under Section 403.061 of the Florida Statutes, the Florida Department of Environmental Protection "has the power and the duty to control and prohibit pollution of air and water in accordance with the law and rules adopted and promulgated by it."[201] Section 403.061(9) directs the Department to "adopt a comprehensive program for the prevention, control, and abatement of pollution of the air and waters of the state, and from time-to-time review and modify such program as necessary."[202] This program includes the establishment of water quality standards.[203]

C. *Protecting Water Quality Under a Cooperative Federalism Approach*

Since the passage of the CWA, states have managed the quality of surface waters within their boundaries principally through what is often described as a "cooperative federalism" approach with the EPA.[204] Within this framework, each state sets water quality standards that define its water quality goals, identifies impaired waters that have water quality problems, and establishes TMDLs that serve as water pollution reduction targets.[205] These standards, lists, and TMDLs are subject to review and approval by the EPA.[206]

The "cooperative federalism" framework may be more of an experiment than anything, as the states' relationship with the EPA under this approach has varied widely.[207] As Professor Oliver Houck aptly put, the Florida experience has been "a very reluctant dance" where the state has resisted and dragged its feet for decades to address nonpoint source pollution.[208]

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199. *Id.* § 403.021(6) (emphasis added).

200. MICHAEL T. OLEXA ET AL., UNIV. FLA. IFAS EXTENSION, 2021 HANDBOOK OF FLORIDA WATER REGULATION: FLORIDA AIR AND WATER POLLUTION CONTROL ACT 1 (2021).

201. FLA. STAT. § 403.061 (2020).

202. *Id*. § 403.061(9).

203. *Id.* § 403.061(11).

204. Am. Farm Bureau Fed'n v. U.S. Env't Prot. Agency, 792 F.3d 281, 288 (3d Cir. 2015).

205. *Id.* at 288–90.

206. *Id.*

207. HOUCK, *supra* note 39. Houck contends that when Congress enacted Section 303(d), it was "equally suspicious both of state enthusiasm for the hard work of pollution control and of the water quality standards method of regulation. But it was willing to give them a shot." *Id.*

208. Houck, *supra* note 33, at 10442.

1. Water Quality Standards Define Water Quality Goals

Control of both point source and nonpoint source pollution turns in large part on the implementation of programs designed to achieve water quality standards. To that end, Section 303 of the CWA requires each state, subject to EPA approval, to develop and enforce comprehensive water quality standards and goals for all intrastate waters.[209] These standards must "protect public health or welfare, enhance the quality of water and serve the purposes of the [CWA]."[210]

Water quality standards are central to the design and plan of the CWA and are at the heart of each strategy of pollution control under the Act. A water quality standard "defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria that protect the designated uses."[211] Uses are typically specified as part of a classification system, with the highest class consisting of potable water supplies.[212] The CWA requires that the classification system "provide water quality for the protection and propagation of fish, shellfish and wildlife and provide for recreation in and on the water" where attainable.[213] Any existing use, and the water quality necessary to continue supporting that use, must also be protected and maintained.[214] Criteria then build on these "uses," fleshing out state water quality standards.[215] These criteria may be expressed as numerical constituent concentrations, narrative statements, or both,[216] and represent a quality of water that supports a particular use.[217] States are encouraged to adopt numeric values based on EPA guidance,[218] and water quality criteria must "accurately reflect[] the latest scientific knowledge."[219]

In addition to identifying designated uses and establishing criteria to protect these designated uses, states must also develop and adopt a statewide antidegradation policy and identify the methods for implementing such a policy as part of their state water quality

209. PUD No. 1 v. Wash. Dep't of Ecology, 511 U.S. 700, 704 (1994).

210. 40 C.F.R. § 131.2 (2015); 33 U.S.C. § 1313(c)(2)(A) (2018).

211. 40 C.F.R. § 131.2 (2015).

212. *See* FLA. ADMIN. CODE ANN. r. 62-302.400 (2016) (listing seven classes of water with associated designated uses).

213. 40 C.F.R. § 130.3 (2022).

214. *See id.* § 131.10(h)(1) (stating that a state may not remove an existing use unless it replaces it with more stringent criteria).

215. *Id.* § 131.3(i).

216. *Id.* § 131.11(b).

217. *Id.* § 131.11(a); *see* PUD No. 1 v. Wash. Dep't of Ecology, 511 U.S. 715, 718–19 (1994) (explaining that water quality criteria can include various types of parameters to support both a designated and existing use, including, for example, minimum water flows).

218. 40 C.F.R. § 131.6 (2022).

219. 33 U.S.C. § 1314(a)(1) (2022).

standards.[220] Pursuant to Florida's antidegradation policy, "[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected."[221]

When criteria are met, water quality will generally protect the designated use.[222] EPA regulations require states to "adopt those water quality criteria that protect the designated use" and that such criteria "must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use."[223] "In designating uses of a waterbody and the appropriate criteria for those uses, the State shall take into consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters."[224] States are required to review their water quality standards at least once every three years and, if appropriate, revise or adopt new standards.[225]

Any new or revised water quality standards must be submitted to the EPA for review and approval or denial.[226] The EPA may determine, even in the absence of a state submission, that a new or revised standard is needed to meet the requirements of the CWA.[227] "Water quality standards play an important role in maintaining and improving the cleanliness and safety of the nation's waterbodies, because they are designed to determine which waterbodies are safe enough to support their designated uses."[228]

Water quality standards are also used by states to implement source controls to manage the pollutant loadings into impaired waters.[229] These actions include point source controls, through the NPDES permitting process, and nonpoint source controls, most often through "best management practices."[230] For point sources, water quality standards form the basis for water quality-based effluent limits, which are placed in NPDES permits for projects that would discharge into the same water "so

220. 40 C.F.R. § 131.12(a) (2022).

221. *Id*. § 131.2(a)(2); FLA. ADMIN. CODE ANN. r. 62-302.300(14) (2016).

222. 40 C.F.R. § 131.3(b).

223. *Id*. § 131.11(a)(1).

224. *Id*. § 131.10(b); *see* 40 C.F.R. § 131.12(a) (2022) (dictating that states must develop and adopt a statewide antidegradation policy and identify the methods for implementing such a policy as part of their state water quality standards).

225. 33 U.S.C. § 1313(c)(1).

226. *Id*. § 1313(c)(2)(A).

227. *Id.* § 1313(c)(4)(B).

228. Fla. Pub. Int. Rsch. Grp. Citizen Lobby, Inc. v. U.S. Env't Prot. Agency, 386 F.3d 1070, 1074 (11th Cir. 2004).

229. U.S. ENV'T PROT. AGENCY, EPA 820-B-15-001, WATER QUALITY STANDARDS HANDBOOK CHAPTER 7: WATER QUALITY STANDARDS AND THE WATER QUALITY-BASED APPROACH TO POLLUTION CONTROL 7 (2015).

230. *Id.* at 8.

that numerous point sources . . . may be further regulated to prevent water quality from falling below acceptable levels."[231]

To a similar effect, water quality standards serve as the basis for the issuance of state water quality certifications under Section 401 of the CWA.[232] These state certifications are required before a federal agency can issue a license or permit for activities that may result in any discharge into navigable waters.[233]

In establishing Florida water quality standards, FDEP found "excessive nutrients (total nitrogen and total phosphorus) constitute one of the most severe water quality problems facing the State. It shall be the Department's policy to limit the introduction of man-induced nutrients into waters of the State."[234]

2. Impaired Waters Indicate Water Quality Problems

After a state adopts EPA-approved water quality standards, it conducts monitoring to assess whether state waters are meeting those standards.[235] Waters that are unable to meet the water quality standard for their identified uses—such as potable water supply, fishing, and recreation—are deemed "impaired" by states, pursuant to Section 303 of the CWA.[236] The Act requires states to develop a comprehensive list of these "impaired" waters.[237]

Every two years, states must submit their lists of impaired waters to the EPA.[238] This information can be incorporated into the state's "integrated report" and submitted to the EPA.[239] The EPA must approve or disapprove these lists of impaired waters before they go into effect[240]

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231. U.S. Env't Prot. Agency v. Cal. *ex rel.* State Water Res. Control Bd., 426 U.S. 200, 205 n.12 (1976); 33 U.S.C. § 1312(a) (2018); 40 C.F.R. § 122.44(d).

232. *Overview of CWA Section 401 Certification*, U.S. ENV'T PROT. AGENCY (Apr. 22, 2022), https://www.epa.gov/cwa-401/overview-cwa-section-401-certification [https://perma.cc/B4BB-ZQET].

233. 33 U.S.C. § 1341 (2018).

234. FLA. ADMIN. CODE ANN. r. 62-302.300(13) (2022).

235. U.S. ENV'T PROT. AGENCY, *supra* note 229, at 2–4.

236. *Overview of Identifying and Restoring Impaired Waters Under Section 303(d) of the CWA*, U.S. ENV'T PROT. AGENCY (Aug. 31, 2022), https://www.epa.gov/tmdl/overview-identifying-and-restoring-impaired-waters-under-section-303d-cwa [https://perma.cc/742L-7L7J].

237. 33 U.S.C. § 1313(d)(1)(A) (2022).

238. *Id.* § 1313(d)(1); *Statute and Regulations Addressing Impaired Waters and TMDLs*, U.S. ENV'T PROT. AGENCY (Aug. 31, 2022), https://www.epa.gov/tmdl/statute-and-regulations-addressing-impaired-waters-and-tmdls#:~:text=Every%20two%20years%2C%20states%20are, fish%20propagation%20or%20human%20recreation [https://perma.cc/HA66-92RC].

239. 33 U.S.C. § 1315(b)(1) (2022); Memorandum from Robert H. Wayland III, Dir., Off. of Wetlands, Oceans, & Watersheds, & James A. Hanlon, Dir., Off. of Wastewater Mgmt., to Water Div. Dirs. (Nov. 22, 2002), https://www3.epa.gov/npdes/pubs/final-wwtmdl.pdf [https://perma.cc/4ZUT-LDWX].

240. 40 C.F.R. § 130.7(d)(2) (2022).

and only if they are consistent with the requirements of 40 C.F.R. § 130.7.[241]

3. Total Maximum Daily Loads are Water Pollutant Reduction Targets

After the state establishes its list of impaired waters and establishes priority rankings for these impaired waters,[242] the state must establish total maximum daily loads (TMDLs).[243] A TMDL is the amount of a pollutant that can enter a particular waterbody without violating state water quality standards.[244] Federal regulations define a TMDL as "the sum of the individual wasteload allocations for point sources and load allocations for nonpoint sources and natural background."[245] The goal of the TMDL program is to restore the quality of these impaired waters to the point of achieving water quality standards.[246]

When a TMDL is developed for waters that are impaired by point and nonpoint sources, EPA guidance directs states to provide "reasonable assurance" that nonpoint source load reductions can be attained.[247] These assurances help the EPA ensure that load allocations "are not based on overly generous assumptions regarding the amount of nonpoint source pollution reductions that will occur."[248] EPA guidance details that a "reasonable assurance that the TMDL's load allocations (LAs) will be achieved could include whether practices capable of reducing the specified pollutant load: (1) exist; (2) are technically feasible at a level required to meet allocations; and (3) have a high likelihood of implementation."[249]

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241. *Id.*

242. 33 U.S.C. § 1313(d)(1)(A), (C) (2018).

243. *Id.*

244. *Id.*

245. 40 C.F.R. § 130.2(i) (2022).

246. 33 U.S.C. §§ 1313(c), (d); Am. Farm Bureau Fed'n v. U.S. Env't Prot. Agency, 792 F.3d 281, 299 (3d Cir. 2015) ("TMDLs are central to the Clean Water Act's water quality scheme because . . . they tie together point-source and nonpoint-source pollution issues in a manner that addresses the whole health of the water.").

247. U.S. ENV'T PROT. AGENCY, GUIDELINES FOR REVIEWING TMDLS UNDER EXISTING REGULATIONS ISSUED IN 1992 (2002), https://www.epa.gov/sites/production/files/2015-10/documents/2002_06_04_tmdl_guidance_final52002.pdf [https://perma.cc/X84K-855Z]. EPA guidance further directs EPA regional offices to work with states to achieve TMDL load allocations where waters are only impaired by nonpoint sources. It is the EPA's position, however, that when a state cannot demonstrate reasonable assurance that load allocations will be achieved, the EPA cannot disapprove a TMDL for waters impaired only by nonpoint sources because current regulations do not require such a showing. *Id.*

248. U.S. ENV'T PROT. AGENCY, CHESAPEAKE BAY TMDL SECTION 7. REASONABLE ASSURANCE AND ACCOUNTABILITY FRAMEWORK 7-1 (2010), https://www.epa.gov/sites/default/files/2014-12/documents/cbay_final_tmdl_section_7_final_0.pdf [https://perma.cc/NB3M-VVLL].

249. *Id.*

Although the EPA proposed rules in 1999 to strengthen the TMDL program and require states to prepare watershed implementation plans (WIPs) to achieve TMDLs and provide reasonable assurances that the load allocations will be met, the Agency later withdrew the rule in 2003.[250] The statute's failure to require states to implement TMDLs may be one reason why the program has not led to wide-spread pollution reductions across the nation.[251] Nevertheless, some states have prepared implementation plans[252] and a few require them under state law.[253]

4. Basin Management Action Plans are the Roadmaps for Implementing TMDLs in Florida

In Florida, basin management action plans (BMAPs) serve as the State's "roadmap" for implementing TMDLs.[254] BMAPs must include management strategies for achieving the TMDL, establish a schedule for implementing the management strategies, establish a basis for evaluating the plan's effectiveness, and identify feasible funding mechanisms for implementing the management strategies.[255] A BMAP must equitably allocate pollutant reductions to individual basins, as a whole to all basins, or to each point source or category of nonpoint sources.[256]

BMAPs are further required to include milestones for implementation and water quality improvement, as well as a water quality monitoring component "to evaluate whether reasonable progress in pollutant load reductions is being achieved over time."[257] FDEP must assess the progress towards these milestones every five years, and revisions to the plan "shall be made as appropriate" by FDEP "in cooperation with basin stakeholders."[258] The statute also requires FDEP, in conjunction with the water management districts, to submit annual progress reports to the Florida Governor, the President of the Florida Senate, and the Speaker of the Florida House of Representatives on the status of each TMDL and BMAP.[259] If the report indicates that any of the five-year milestones for

250. CLAUDIA COPELAND, CONG. RSCH. SERV., R42752, CLEAN WATER ACT AND POLLUTANT TOTAL MAXIMUM DAILY LOADS (TMDLS) 4 (2014), https://crsreports.congress.gov/ product/ pdf/R/R42752 [https://perma.cc/V2JT-X55P].

251. Owen, *supra* note 34, at 851.

252. *Effectively Implementing TMDLs*, U.S. ENV'T PROT. AGENCY (Aug. 31, 2022), https://www.epa.gov/tmdl/effectively-implementing-tmdls [https://perma.cc/6TDV-BH5A].

253. COPELAND, *supra* note 250, at 17.

254. *Basin Management Action Plans (BMAPs)*, FLA. DEP'T ENV'T PROT. (July 21, 2022), https://floridadep.gov/dear/water-quality-restoration/content/basin-management-action-plans-bmaps [https://perma.cc/XN85-LCWE].

255. FLA. STAT. § 403.067(7)(a)(1) (2022).

256. *Id.* § 403.067(7)(a)(2).

257. *Id.* § 403.067(7)(a)(6).

258. *Id.*

259. *Id.* § 403.0675(1).

achieving a TMDL will not be met, it must explain the possible causes and potential solutions.[260] FDEP is the lead agency in coordinating the implementation of TMDLs through water quality protection programs.[261] BMAPs are enforceable orders.[262] Although the EPA has the authority to review TMDLs under the CWA,[263] BMAPs and similar implementation plans are not subject to EPA approval.[264] Regardless, states must still engage in a continuing planning process subject to EPA review and approval that includes "adequate implementation" of water quality standards[265] as well as the preparation and submission of state assessment reports and management plans for nonpoint source pollution.[266]

IV. REGULATORY FAILURES CONTRIBUTING TO FLORIDA'S HAB CRISIS: LAKE OKEECHOBEE IN FOCUS

Despite the passage of the CWA nearly five decades ago and subsequent amendments that required states to adopt water quality criteria, list impaired waters, and establish TMDLs, algal blooms remain a pervasive threat across the nation.[267] Some of the most widespread and damaging blooms have occurred in Florida's Lake Okeechobee and coastal estuaries.[268]

This Article examines some of the regulatory failures contributing to the HAB crisis through the lens of Lake Okeechobee, which faces extremely complex problems. Much of the ecological harm facing the Greater Everglades ecosystem has resulted from more than a thousand miles of canals, ditches, levees, and other structures that have compartmentalized and delivered pollutants into the system for more than a century.[269] In turn, water management decisions have been constrained by engineering limitations, flooding and seepage concerns, and even a federal consent decree.[270] Moreover, there is enough legacy phosphorus

260. *Id.*

261. FLA. STAT. § 403.067(7)(b)(1).

262. *Id.* § 403.067(7)(a)(5).

263. 33 U.S.C. § 1313(d) (2018); 40 C.F.R. 130.7 (2022).

264. U.S. ENV'T PROT. AGENCY, *supra* note 247.

265. 33 U.S.C. § 1313(e) (2018).

266. *Id.* § 1329.

267. U.S. ENV'T PROT. AGENCY, *supra* note 19, at 3–4.

268. *As New Algae Bloom Spreads Across Lake Okeechobee, Florida Urged to Set Standards Critical to Protecting People, Wildlife from Harmful Toxins*, CTR. FOR BIOLOGICAL DIVERSITY (May 19, 2021), https://biologicaldiversity.org/w/news/press-releases/as-new-algae-bloom-spreads-across-lake-okeechobee-florida-urged-to-set-standards-critical-to-protecting-people-wildlife-from-harmful-toxins-2021-05-19/ [https://perma.cc/7QH9-PKXM].

269. Kristin Shade-Poole & Gregory Miller, *Impact and Mitigation of Nutrient Pollution and Overland Water Flow Change on the Florida Everglades, USA*, 8 SUSTAINABILITY 1, 6 (2016).

270. Tyler Treadway, *SFWMD Attorneys: Consent Decree Merely a Security Blanket for Environmentalists*, TCPALM (Feb. 1, 2019), https://www.tcpalm.com/story/news/local/indian-river-lagoon/health/2019/02/01/sfwmd-we-dont-need-federal-oversight-everglades-projects/

in the system to sustain the exceedance of the TMDL for decades even if all new inputs were eliminated tomorrow.[271]

Notwithstanding these complexities, there are aspects of the Lake Okeechobee experience that are straightforward and not unlike the issues facing imperiled watersheds across the nation. For one, the pollution entering the lake is mostly from agricultural nonpoint sources, and there are no permitted point sources discharging directly into the lake.[272] Most of the pollution comes from the north, east, and west, rather than from the south, where the system is much more engineered.[273] This runoff is not unlike that found in many other regions in the United States, from the farm fields along the Mississippi River to those neighboring the Chesapeake Bay.[274] The lake also provides a jarring illustration of the damage that can occur when years of regulatory neglect are followed by legislation that prioritizes voluntary approaches over quantifiable performance standards, strict deadlines, and enforcement actions.

It is with these considerations in mind that the Lake Okeechobee experience is instructive. It provides an opportune case study of the regulatory failures that have dogged so many nonpoint source control programs throughout the country as well as the opportunities that lie within state law to better address HABs.

A. *Florida Failed to Timely List Lake Okeechobee as Impaired and Establish a TMDL*

In many ways, the HAB crisis in South Florida is the product of a legacy of extensive, historic efforts to intensely drain the Greater Everglades region, the State's failure to take swift action to protect its surface waters upon passage of the CWA, and ongoing regulatory failures to effectively manage nonpoint source pollution.

2742746002/ [https://perma.cc/D82W-FDD2].

271. Krimsky et al., *supra* note 171.

272. STEPHANIE BAZAN ET AL., ENVIRONMENTAL PLAN FOR KISSIMMEE OKEECHOBEE EVERGLADES TRIBUTARIES (EPKOET) 14 (2020), https://www.wrc.udel.edu/wp-content/uploads/2020/05/EPKOET%20Report.pdf [https://perma.cc/FA29-ZHQ5]; AUDUBON FLA., EXCESSIVE NUTRIENTS THREATEN HEALTH OF LAKE OKEECHOBEE ECOSYSTEM 1 (2014), https://fl.audubon.org/sites/default/files/audubon_lakeokeechobee_nutrient_factsheet_august2014.pdf [https://perma.cc/YCV2-D94R].

273. G. GOFORTH, A BRIEF DISCUSSION OF LAKE OKEECHOBEE POLLUTION 6 (2018), http://garygoforth.net/Lake%20Okeechobee%20Pollution%20Summary%20-%20Draft%208%2021%202018.pdf [https://perma.cc/H9B2-BPPN].

274. *Agricultural Runoff*, CHESAPEAKE BAY PROGRAM, https://www.chesapeakebay.net/issues/threats-to-the-bay/agricultural-runoff [https://perma.cc/CP7M-LMBG] (last visited Feb. 11, 2023); *How Agriculture Affects the Mississippi River*, MISS. RIVER COLLABORATIVE, https://www.msrivercollab.org/focus-areas/agriculture/ [https://perma.cc/TVX5-P6L8] (last visited Feb. 11, 2023).

In the early years of the CWA, states were far from expeditious in carrying out their duties.[275] This was perhaps most evident in the states' resistance to timely identifying which of their waters were impaired and establishing TMDLs for these waters.[276] While the EPA was initially to blame for not identifying the pollutants to which TMDLs applied, pollutants were eventually identified and the states were required to submit TMDLs by June 1979.[277] Yet the states failed to establish these TMDLs, even as waters became more polluted.[278] It took lawsuits filed by citizen groups to compel action.[279] The courts reached a consensus view that a state's failure to submit a TMDL should be deemed a "constructive submission" by the state that no TMDL is needed, triggering the EPA's duty to accept that conclusion or promulgate its own TMDL.[280] Even then, action was not immediate.[281] By the mid-1990s, courts became frustrated and directed states and the EPA to develop TMDLs.[282] More suits were filed, and thousands of TMDLs were drafted.[283]

One of these lawsuits included an action filed by environmental groups in 1998 against the EPA for not compelling Florida to establish TMDLs for the State's water bodies, including Lake Okeechobee.[284] To explain: "The following year, the parties entered a consent decree, which required the EPA to establish TMDLs for more than 500 water bodies due to the state's failure. The consent decree established a priority schedule for TMDLs for waters throughout the state."[285] The consent decree established a priority schedule for TMDLs for waters throughout the state.[286] The Florida Legislature later enacted the Watershed Restoration Act in 1999, codifying Florida's TMDL program—more than a quarter century after the passage of the CWA.[287] Even with the

275. Am. Farm Bureau Fed'n v. U.S. Env't Prot. Agency, 792 F.3d 281, 291 (3d Cir. 2015).

276. HOUCK, *supra* note 39, at 49–64.

277. *Am. Farm Bureau Fed'n*, 792 F.3d at 290.

278. HOUCK, *supra* note 39, at 49–64.

279. *Id.*

280. *Am. Farm Bureau Fed'n*, 792 F.3d at 290.

281. *Id.*

282. *Id.* at 290–91.

283. *Id.* at 291.

284. Petition for Rulemaking from Ctr. for Biological Diversity et al. to Fla. Dep't of Env't Prot. & Env't Regul. Comm'n 88 n.474 (May 23, 2019) [hereinafter Petition for Rulemaking], https://www.biologicaldiversity.org/programs/environmental_health/pdfs/Cyanotoxin-Petition.pdf [https://perma.cc/PJ3D-9V5B].

285. *Id.*

286. *Id.*

287. FLA. STAT. § 403.067 (1999); *see* HOUCK, *supra* note 39, at 56 (noting that it was twenty-five years after the passage of Section 303(d) of the CWA that all but a few states and territories had lists of water quality limited segments and the TMDL process "had actually begun").

establishment of a TMDL program, the state delayed establishing numeric criteria for nutrients for more than a decade, which further impeded the state's progress in addressing nonpoint source pollution.[288] The Florida experience has been an example of a phenomenon that commentators have characterized as "uncooperative federalism."[289]

Once the TMDL program was finally established in Florida, in 2001, the state adopted a TMDL for Lake Okeechobee setting a phosphorous target of 140 metric tons per year.[290] The Lake Okeechobee Protection Plan listed a target year of 2015 to meet the phosphorous TMDL.[291] By 2015, the state was far from meeting the TMDL.[292] Consequently, the Florida Legislature amended the law in 2016, adopting a BMAP that delayed the deadline for achieving the TMDL by twenty years.[293] If achieving the TMDL within twenty years is "not practicable," additional five-year milestones can be established.[294]

Unfortunately, it has been two decades since the legislature established the TMDL for Lake Okeechobee, and the state is not even close to meeting the 140 metric tons per year pollution standard for phosphorus.[295] According to a 2015 report issued by the University of Florida Water Institute, since 1974, annual total phosphorus loads to Lake Okeechobee have exceeded 500 metric tons nearly fifty percent of the time.[296] Averaged over the forty-one-year period of record, the annual phosphorus load is approximately 3.6 times the annualized TMDL.[297] The majority of these nutrients enter the watershed from agricultural and urban sources.[298]

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288. Houck, *supra* note 33, at 10437–42.

289. *Id.* at 10442 n.211.

290. FLA. ADMIN. CODE ANN. r. 62-304.700 (2001).

291. FLA. STAT. § 373.4595(4)(c)(3) (2000).

292. Daniel E. Canfield Jr. et al., *Restoration of Lake Okeechobee, Florida: Mission Impossible?*, 37 LAKE & RESERVOIR MGMT. 95, 95–96 (2021).

293. FLA. STAT. § 373.4595(3)(b) (2016).

294. FLA. DEP'T OF ENV'T PROT., FLORIDA STATEWIDE ANNUAL REPORT ON TOTAL MAXIMUM DAILY LOADS, BASIN MANAGEMENT ACTION PLANS, MINIMUM FLOWS OR MINIMUM WATER LEVELS, AND RECOVERY OR PREVENTION STRATEGIES 8 (June 2018), https://floridadep.gov/sites/default/files/2017STAR_MainReport_WithCoverLetter_062718.pdf [https://perma.cc/ZCB7-BAEE]. Unfortunately, the state legislature's practice of extending deadlines when water pollution reduction targets are not met is not without precedent. For example, when it became apparent that the state would miss a 2006 deadline for phosphorus pollution cleanup as established under the Everglades Forever Act, the Act was amended to extend the deadline another ten years. *See* Houck, *supra* note 33, at 10436.

295. Jenny Staletovich, *Florida Tops List for the Most Polluted Lakes in the U.S., Study Finds*, WUSF (Mar. 18, 2022), https://wusfnews.wusf.usf.edu/environment/2022-03-18/florida-tops-list-for-the-most-polluted-lakes-in-the-u-s-study-finds [https://perma.cc/ZUJ6-QRHK].

296. GRAHAM ET AL., *supra* note 33, at 63.

297. *Id.* at 63–64.

298. FLA. DEP'T OF ENV'T PROT., *supra* note 40, at 24–25.

Given the decades of delays in establishing a TMDL for the lake and the state's failure to achieve the TMDL in the years that followed, it should not come as a surprise that a significant amount of this pollution is in the form of legacy phosphorus.[299] Scientists have estimated that even if all phosphorus pollution stopped entering the lake tomorrow, the phosphorus levels would exceed the TMDL due to the amount of legacy phosphorus in the basin's soil.[300] This would sustain approximately 500 metric tons per year of total phosphorus loading for several decades.[301] Phosphorus-enriched settlements in the lake "are also likely to sustain" high total phosphorus concentrations for "decades beyond the basin legacy phosphorus removal timeline."[302]

B. *The Lake Okeechobee TMDL Failed to Provide Reasonable Assurances that Pollution Reduction Measures Would be Implemented*

The state's inability to reduce nutrient loadings stems in large part from the state's failure to adequately implement the pollution reduction measures necessary to achieve the TMDL.[303] Although the Lake Okeechobee TMDL recognized the connection between phosphorus pollution and HABs, as well as the harm caused by HABs,[304] for more than a decade there was no plan in place to implement the TMDL and address these harms.[305] When the BMAP was finally established in

299. *See* K. Ramesh Reddy et al., *Phosphorous Cycling in the Greater Everglades Ecosystem: Legacy Phosphorous Implications for Management and Restoration*, 41 CRITICAL REVS. ENV'T REV. SCI. & TECH. 149, 179 (2011) (explaining that "[e]ven very conservative estimates" indicate that legacy phosphorous in the Everglades could sustain phosphorous loads for many decades).

300. *Id.* at 178.

301. *Id.* at 150, 178–79.

302. Yogesh Khare et al., *A Phased Assessment of Restoration Alternatives to Achieve Phosphorus Water Quality Targets for Lake Okeechobee, Florida, USA*, 11 WATER 1, 17 (2019).

303. Sydney Czyzon & Max Chesnes, *Look at the Water for Evidence. Data Proves Florida Prevention Not Working*, TCPALM (May 6, 2022, 4:00 PM), https://www.tcpalm.com/in-depth/news/local/indian-river-lagoon/2022/01/05/florida-bmaps-lake-okeechobee-water-pollution-environment-bmp-fdep-fdacs-desantis-farming-regulation/6392489001/ [https://perma.cc/NB6X-LKCY].

304. *See* FLA. DEP'T OF ENV'T PROT., TOTAL MAXIMUM DAILY LOAD FOR TOTAL PHOSPHORUS LAKE OKEECHOBEE, FLORIDA 9–10, 30–32 (2001) (finding the TMDL sets a target forty parts per billion concentration of phosphorous, which if achieved would significantly reduce the number of blooms from occurring).

305. *See* S. FLA. WATER MGMT. DIST. ET AL., LAKE OKEECHOBEE PROTECTION PLAN UPDATE 16 (2011), https://www.sfwmd.gov/sites/default/files/documents/lopp_update_2011.pdf [https://perma.cc/6ASS-Y5T5] (explaining that a BMAP *may* be created to meet the TMDL but that the Lake Okeechobee Protection Plan already "fulfills the role of a BMAP for Lake Okeechobee").

2014,[306] it lacked an adequate framework to protect Lake Okeechobee and the coastal estuaries from excessive nutrient loads and HABs.[307]

The initial BMAP assumed that all agricultural lands were enrolled in the Florida Department of Agriculture and Consumer Services' (FDACS) BMP program and that these BMPs were being implemented,[308] despite a 2014 report by FDACS revealing that, of the more than four million acres enrolled under the BMP program, FDACS had only conducted 329 implementation site visits for 257,285 enrolled acres.[309] The BMAP also lacked allocations to categories of nonpoint source pollution.[310] The lack of allocations undermined the statutory mandate that these plans equitably allocate pollutant reductions between or *among* point and *nonpoint sources* to meet the TMDL.[311] Instead, it allocated the entire load to all nonpoint sources in the aggregate.[312] The adaptive management process also lacked procedures for corrective measures if BMPs were underperforming.[313] Further, the BMAP identified "potential" funding sources but provided few details about whether these funds would be obtained and applied toward reducing total phosphorus in the watershed.[314]

306. FLA. DEP'T OF ENV'T PROT., FINAL 2015 PROGRESS REPORT FOR THE LAKE OKEECHOBEE BASIN MANAGEMENT ACTION PLAN 10–11 (2016).

307. *See generally* WENDY D. GRAHAM ET AL., SCIENTIFIC SYNTHESIS TO INFORM DEVELOPMENT OF THE NEW LAKE OKEECHOBEE SYSTEM OPERATING MANUAL 27 (2020), https://waterinstitute.ufl.edu/wp-content/uploads/UF-Water-Institute-Final-LOSOM-Synthesis-Report.pdf [https://perma.cc/YU86-Y564] ("[T]he Total Maximum Daily Load (TMDL) for total phosphorus was set at a level equivalent to 140 metric tons/year with the goal of reducing in-lake total phosphorus (TP) concentrations . . . . Annual TP inputs to the lake, however, have typically remained 3-4 times larger than the target value.").

308. FLA. DEP'T OF ENV'T PROT., BASIN MANAGEMENT ACTION PLAN FOR THE IMPLEMENTATION OF TOTAL MAXIMUM DAILY LOADS FOR TOTAL PHOSPHORUS BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION IN LAKE OKEECHOBEE 42 (2014), https://floridadep.gov/sites/default/files/LakeOkeechobeeBMAP.pdf [https://perma.cc/NM74-9LBX].

309. Douglas H. MacLaughlin, *Will Basin Management Action Plans Restore Florida's Impaired Waters?*, 89 Fla. Bar J. 31, 37 (2015).

310. The 140 metric ton per year total phosphorous standard was allocated to the entire Lake Okeechobee watershed. *See* FLA. DEP'T OF ENV'T PROT., *supra* note 306, at xiv–xvi.

311. FLA. STAT. § 403.067(6)(b) (2022); *see* MacLaughlin, *supra* note 309, at 31–33 (explaining the statutory requirement in Section 403.067(6)(b)).

312. FLA. DEP'T OF ENV'T PROT., *supra* note 306, at 17.

313. *Id.* at 72.

314. *Id.* at 139.

C. *Executive Orders and Legislation Have Not Resulted in Stronger Agricultural Nonpoint Source Pollution Controls*

1. The State Has Not Fully Implemented the Recommendations of the Florida Blue Green Algae Task Force

Following what may have been the most devastating HABs in Florida's history in 2018, Florida Governor Ron DeSantis issued an executive order aimed at addressing the crisis.[315]

Perhaps the most noteworthy aspect of Executive Order 19-12 was the creation of a Blue Green Algae Task Force "charged with focusing on expediting progress toward reducing the adverse impacts of blue-green algae blooms now and over the next five years."[316] This followed the nearly two-decade absence of the Harmful Algal Bloom Task Force, which was established in 1997 after two major HABs in Florida in 1996.[317] The state disbanded the force in 2002 due to a lack of funding.[318] Executive Order 19-12 stated:

> [The Blue Green Algae Task Force] should support key funding and restoration initiatives to expedite nutrient reductions in Lake Okeechobee and the downstream estuaries. This task force should identify priority projects for funding that are based on scientific-data and built upon Basin Management Action Plans to provide the largest and most meaningful nutrient reductions in key waterbodies, as well as make recommendations for regulatory changes.[319]

The Blue Green Algae Task Force is comprised of five scientists who have expertise in aquatic ecology, oceanography, environmental engineering, and marine biology.[320] The task force has met on several occasions to examine the sources of nutrient over-enrichment and the measures in place for monitoring, reducing, and remediating them.[321] In October 2019, the task force issued its first "consensus document," which

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315. Fla. Exec. Order No. 19-12 (Achieving More Now for Florida's Environment) 1 (Jan. 10, 2019) [hereinafter Fla. Exec. Order No. 19-12], https://www.flgov.com/wp-content/uploads/orders/2019/EO_19-12.pdf [https://perma.cc/XY7G-LA6P].

316. *Id.* at 2.

317. *History of Florida's Harmful Algal Bloom Task Force*, FLA. FISH & WILDLIFE CONSERVATION COMM'N, https://myfwc.com/research/redtide/taskforce/history/ [https://perma.cc/FQ9D-SS4Q] (last visited Feb. 17, 2023).

318. *Id.* In 2019, the Harmful Algal Bloom Task Force was reconvened at the Florida Governor's direction. *Id.*

319. Fla. Exec. Order No. 19-12, *supra* note 315, at 2.

320. *State Task Force Efforts: Blue-Green Algae Task Force*, PROTECTING FLA. TOGETHER, https://protectingfloridatogether.gov/state-action/blue-green-algae-task-force [https://perma.cc/HC5U-A2BZ] (last visited Feb. 17, 2023).

321. *Id.*

contains a set of recommendations aimed at informing policy decisions and regulatory actions as well as filling in information gaps.[322] The consensus document "highlights areas where additional study and/or policy and regulatory reform are warranted,"[323] including BMAPs, BMPs, onsite sewage treatment and disposal systems, sanitary sewer overflows, storm water treatment systems, innovative technologies and applications, public health, and monitoring programs.[324]

The establishment of the Blue Green Algae Task Force is a significant first step toward addressing the algae crisis. It elevates science over politics, the latter of which has stymied the state's development and implementation of pollution reduction measures for decades.[325]

Unfortunately, the status quo has remained, as little regulatory and legislative progress has been made since the task force was established. The state legislature took a few steps toward implementing some of the task force's recommendations when it passed the Clean Waterways Act in 2020, such as allowing DEP to proactively inspect wastewater treatment systems and requiring FDACS to inspect agricultural operations every two years to verify BMP compliance.[326] Yet the Clean Waterways Act does not directly address the ways in which agricultural pollution can be better managed at the source, what more needs to be done to achieve the pollution reduction targets set forth in the TMDLs, and how state agencies can better monitor for cyanotoxins and notify the public when HABs pose a threat to human health.[327]

2. The Governor's Executive Order Has Not Led to Significant Improvements in the Implementation of TMDLs

Executive Order 19-12 further directed FDEP to update and secure all restoration plans within one year for waterbodies impacting South Florida communities.[328] In 2020, FDEP performed five-year reviews for the Lake Okeechobee, St. Lucie, and Caloosahatchee BMAPs and updated the

322. FLA. DEP'T OF ENV'T PROT., BLUE-GREEN ALGAE TASK FORCE CONSENSUS DOCUMENT #1 *passim* (Oct. 11, 2019), https://floridadep.gov/sites/default/files/Final%20Consensus%20%231_0.pdf [https://perma.cc/FK63-Y26K].

323. *Id.* at 2.

324. *Id.* at 2–10.

325. Houck, *supra* note 33, at 10442; Greg Allen, *'A Government-Sponsored Disaster': Florida Asks for Federal Help with Toxic Algae*, NPR (July 9, 2016, 12:58 PM), https://www.npr.org/2016/07/09/485367388/a-government-sponsored-disaster-florida-asks-for-federal-help-with-toxic-algae [https://perma.cc/X2UA-L3H3].

326. Renzo Downey, *Gov. DeSantis Signs Clean Waterways Act*, FLA. POLS. (June 30, 2020), https://floridapolitics.com/archives/345170-gov-desantis-signs-clean-waterways-act/ [https://perma.cc/A5UB-NQ8D]; Clean Waterways Act, 2020 Fla. Laws 150 (2020).

327. Clean Waterways Act, 2020 Fla. Laws 150 (2020).

328. Fla. Exec. Order No. 19-12, *supra* note 315, at 2.

BMAPs.[329] Although the Lake Okeechobee BMAP now includes sub-watershed load allocations, milestones for achieving load reductions, and more frequent reporting,[330] it still falls short of providing an adequate framework for the state to effectively manage nutrient loads.

Many of the same deficiencies in the initial Lake Okeechobee BMAP remain in the updated BMAP. The current BMAP still does not acknowledge that high phosphorus levels are one of the principal drivers of HABs in the lake and estuaries and does not address why meeting the TMDL is critical if the state hopes to reduce HABs. The BMAP also does not assign load allocations among the various types of nonpoint sources, particularly those within certain pollution hotspots. This is despite the fact that certain types of land uses and operations, such as intensive pastures and dairies, contribute a larger percentage of nutrients into the system than others, like unimproved pastures, groves, and orchards.[331] The BMAP continues to rely predominantly on the implementation of agricultural BMPs to achieve load reductions.[332] But after more than two decades, there is "insufficient" BMP enrollment, according to FDEP.[333] Even where FDACS makes a site visit and finds a landowner or producer not in compliance, it remains unclear under the Florida statute what specific enforcement procedures are in place after corrective ("first touch") and remedial ("second touch") measures fail to achieve compliance.[334] Where BMPs are being implemented, questions remain about whether they can achieve the desired load reductions.[335]

Aside from the five-year review process, the Lake Okeechobee BMAP does not include a platform for the public to review the state's progress toward meeting the TMDL or opportunities for continuing stakeholder engagement. It also does not provide opportunities for more frequent revisions if FDEP learns through adaptive management and the yearly reporting process that the load reduction strategies (principally

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329. FLA. DEP'T OF ENV'T PROT., *supra* note 40, *passim*; FLA. DEP'T OF ENV'T PROT., CALOOSAHATCHEE RIVER AND ESTUARY BASIN MANAGEMENT ACTION PLAN *passim* (2020) [hereinafter CALOOSAHATCHEE 2020 BMAP], https://publicfiles.dep.state.fl.us/DEAR/DEARweb/BMAP/NEEP_2020_Updates/CaloosahatcheC%20BMAP_01-31-2020.pdf; FLA. DEP'T OF ENV'T PROT., ST. LUCIE RIVER AND ESTUARY BASIN MANAGEMENT ACTION PLAN *passim* (2020) [hereinafter ST. LUCIE 2020 BMAP], https://publicfiles.dep.state.fl.us/DEAR/DEARweb/BMAP/NEEP_2020_Updates/St_Lucie_BMAP_01-31-20.pdf [https://perma.cc/6UDL-FDY9].

330. FLA. DEP'T OF ENV'T PROT., *supra* note 40, at 24, 53, 45.

331. Khare et al., *supra* note 302, at 4 tbl.1.

332. FLA. DEP'T OF ENV'T PROT., *supra* note 40, at 25–27.

333. *Id.* at 15.

334. Catherine Awasthi & Ralph A. DeMeo, *Marine Canary in the Coal Mine: The Latest Threats to Manatee Survival and Efforts to Save Them*, 95 FLA. BAR. J. 52, 55 (2021).

335. *7/1/19 Department of Environmental Protection Blue-Green Algae Task Force Part 1*, FLA. CHANNEL (July 1, 2019) [hereinafter *7/1/19 Department of Environmental Protection*], https://thefloridachannel.org/videos/7-1-19-Department-of-environmental-protection-blue-green-algae-task-force-part-1 [https://perma.cc/H5XB-ZCS2]/.

BMPs) are not performing as expected. Additionally, the BMAP lacks backstops if milestones are not met. The latter issue is particularly troubling given FDEP's statement that "[d]ue to the fact that necessary local and regional nutrient reduction projects are still being identified, and as a result of insufficient agricultural BMP enrollment, BMP implementation verification, and other management strategies, it does not seem practicable to achieve reductions sufficient to meet the TMDL within 20 years."[336]

3. There Needs to be Greater Investment Toward Addressing the Pollution at the Source

Lastly, the Executive Order calls for additional investment in Everglades restoration and addressing nonagricultural sources of pollution.[337] These water storage and treatment projects are certainly needed to address the historic "plumbing problem" plaguing the lake and reduce the harmful discharges to the estuaries. The construction of large reservoirs and storage treatment areas, however, will neither address the pollution at the source nor prevent HABs from occurring in the future.[338] Further, although there are additional sources of pollution that the Executive Order does seek to address through increased investment in water treatment and funding programs, such as storm water and leaking septic tanks,[339] these other sources contribute a smaller percentage of the total phosphorus and nitrogen entering the lake than agricultural operations.[340] Moreover, while this Article proposes some statutory and regulatory reforms to better address these other sources, the infrastructure improvements and upgrades needed to reduce nonagricultural nonpoint source pollution (such as replacing old, broken, or leaking sewer lines and converting properties with onsite sewage treatment and disposal

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336. FLA. DEP'T OF ENV'T PROT., *supra* note 40.

337. Fla. Exec. Order No. 19-12, *supra* note 315, at 2–4.

338. NAT'L ACADEMIES OF SCIS., ENG'G, & MED., *supra* note 55, at 6. As a report from the National Academies of Sciences, Engineering, and Medicine explains, "CERP ecological restoration goals, particularly in the northern estuaries and Biscayne Bay, cannot be met if water quality and associated algal blooms, which are outside of the direct purview of the CERP, are not addressed." *Id.* at 9. The report further notes that

> Some CERP projects are expected to reduce nutrient loads, but the water quality components of CERP projects represent only minor aspects of the steps needed to meet water quality criteria in the estuaries. Requirements for compliance with the Clean Water Act to address pollution and water quality fall to the state and not to CERP.

Id. at 10. The report also states that public expectations for improved estuarine conditions extend beyond what CERP alone can achieve and require non-CERP efforts as well. *Id.*

339. Fla. Exec. Order No. 19-12, *supra* note 315, at 2–3.

340. FLA. DEP'T OF ENV'T PROT., *supra* note 40, at 24–25 tbl.3.

systems to central sewer systems) depend largely on significantly more capital investment by state and local governments.

V. RECOMMENDATIONS TO ADDRESS HARMFUL ALGAL BLOOMS

The State of Florida should embrace its primary role under the CWA and take bold steps towards reducing nonpoint source pollution and restoring water quality. To this end, it should adopt specific water quality criteria for cyanotoxins, retool the BMP programs, adopt BMAP approaches that embrace accountability frameworks pioneered by the Chesapeake Bay TMDL, and adapt to the compounding effects of climate change. While the recommendations below use Florida as an example, many of the recommendations can be broadly applied to any state suffering from HABs.

A. *Florida Should Adopt Water Quality Criteria for Cyanotoxins and Improve Monitoring and Notification Systems*

The first step toward addressing HABs should be to identify, establish, and enforce water quality standards for cyanotoxins. Currently, there are no federal standards for cyanobacteria or cyanobacterial toxins in drinking water under the Safe Drinking Water Act (SDWA).[341] Since states are primarily responsible for establishing water quality standards for surface waters, there are also no federal limits on cyanotoxins in lakes, rivers, estuaries, and other water bodies.[342] The EPA, however, has published recommendations for states to protect people from cyanotoxins in drinking water and recreational waters.[343] Florida should use the EPA's recommendations to establish its own drinking water and surface water standards. These standards, coupled with improvements to the state's water quality monitoring and notification systems, would better protect people, pets, and wildlife from HABs.

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341. U.S. ENV'T PROT. AGENCY, EPA-810F11001, CYANOBACTERIA AND CYANOTOXINS: INFORMATION FOR DRINKING WATER SYSTEMS 1 (2019) [hereinafter EPA-810F11001], https://www.epa.gov/sites/default/files/2019-07/documents/cyanobacteria_and_cyanotoxins_fact_sheet_for_pws_final_06282019. pdf [https://perma.cc/V58L-95M9].

342. *See id.* (stating that there are no federal guidelines for cyanobacteria and their toxins in recreational waters).

343. U.S. ENV'T PROT. AGENCY, *supra* note 19, *passim*. In 2019, the EPA published final recommendations that significantly increased the allowable levels of exposure. *See* U.S. ENV'T PROT. AGENCY, EPA 823-R-19-001, RECOMMENDATIONS FOR CYANOBACTERIA AND CYANOTOXIN MONITORING IN RECREATIONAL WATERS *passim* (2019) [hereinafter EPA 823-R-19-001], https://www.epa.gov/sites/production/files/2019-09/documents/recommend-cyano-rec-water-2019-update.pdf [https://perma.cc/4SEK-GY8M].

1. There Should Be Drinking Water Standards for Cyanotoxins

The SDWA authorizes the EPA to set national drinking water standards to protect the public against both naturally-occurring and man-made contaminants.[344] The SDWA requires the EPA to publish a maximum contaminant level goal and promulgate a national primary drinking water regulation (NPDWR) for a contaminant if it determines that (1) the contaminant may have adverse health effects; (2) the contaminant known to occur (or there is a substantial likelihood that it occurs) frequently in public water systems at levels of public health concern; and (3) there is a meaningful opportunity for health risk reduction for people served by public water systems.[345] The EPA has established drinking water standards for more than ninety contaminants.[346]

The EPA has placed cyanobacteria and their toxins on its Contaminant Candidate Lists, which identify contaminants that are not subject to any proposed or promulgated NPDWR but are known or anticipated to occur in public water systems and may need to be regulated under the SDWA.[347]

In 2015, the EPA released health advisory values for algal toxins in drinking water.[348] Health advisory values identify the concentration of a contaminant in drinking water at which adverse health effects are not expected to occur over specific exposure deadlines (for example, ten days).[349] They serve as informational technical guidance for federal, state, and local governments and water system managers in protecting public health when emergency spills or contamination events occur.[350] Health advisory values provide information on environmental properties, health

344. *Overview of the Safe Drinking Water Act*, U.S. ENV'T PROT. AGENCY (Feb. 15, 2022), https://www.epa.gov/sdwa/overview-safe-drinking-water-act [https://perma.cc/GB6X-9RJE]; Safe Drinking Water Act, 42 U.S.C. §§ 300f–300j-27.

345. Safe Drinking Water Act, 42 U.S.C. § 300g-1(b)(1)(A)(i)–(iii).

346. *Safe Drinking Water Act*, U.S. ENV'T PROT. AGENCY (July 14, 2022), https://www.epa.gov/sdwa [https://perma.cc/KT2U-STQG].

347. U.S. ENV'T PROT. AGENCY, 2015 DRINKING WATER HEALTH ADVISORIES FOR TWO CYANOBACTERIAL TOXINS 1 (2015), www.epa.gov/sites/default/files/2017-06/documents/cyanotoxins-fact_sheet-2015.pdf; EPA-810F11001, *supra* note 341.

348. *EPA Issues Health Advisories to Protect Americans from Algal Toxins in Drinking Water*, U.S. ENV'T PROT. AGENCY (May 6, 2015), https://archive.epa.gov/epa/newsreleases/epa-issues-health-advisories-protect-americans-algal-toxins-drinking-water.html [https://perma.cc/SUA9-TZ68]; U.S. ENV'T PROT. AGENCY, EPA-820R15100, DRINKING WATER HEALTH ADVISORIES FOR THE CYANOBACTERIAL MICROCYSTIN TOXINS *passim* (2015) [hereinafter EPA-820R15100], https://www.epa.gov/sites/default/files/2017-06/documents/microcystins-report-2015.pdf [https://perma.cc/KD48-LFE4]; U.S. ENV'T PROT. AGENCY, EPA-820R15101, DRINKING WATER HEALTH ADVISORY FOR THE CYANOBACTERIAL TOXIN CYLINDROSPERMOPSIN *passim* (2015) [hereinafter EPA-820R15101], https://www.epa.gov/sites/default/files/2017-06/documents/cylindrospermopsin-report-2015.pdf [https://perma.cc/H99G-546J].

349. U.S. ENV'T PROT. AGENCY, *supra* note 347.

350. *Id.*

effects, analytical methodology, and treatment for removal of drinking water contaminants.[351] There are health advisory values for more than 200 contaminants.[352] Some states have published guidance values for cyanotoxins in drinking water, and Ohio has established a "do not drink" level for children and sensitive populations.[353]

Currently, there is no program in place to monitor for the occurrence of cyanotoxins (including microcystins and cylindrospermopsin) at surface water treatment plants for drinking water in the United States.[354] The majority of states also do not require cyanotoxin monitoring in drinking water.[355] In Florida, although some cities may proactively test for cyanotoxins, testing is not required routinely for treatment facilities,[356] and it appears there is no state guidance for public water systems.[357]

Federal action may, however, be on the horizon. Following the EPA's issuance of health advisories (HAs) for algae toxins in drinking water, the Agency published its Fourth Unregulated Contaminant Monitoring Rule (UCMR 4) for public water systems in 2016.[358] Pursuant to the SDWA,[359] the EPA is required once every five years to issue a new list of no more than thirty unregulated contaminants to be monitored by public water systems.[360] UCMR 4 was intended to provide the EPA and others with data on the occurrence and levels of contaminants in drinking water.[361] Under UCMR 4, thirty chemical contaminants were monitored and surveyed from 2018 to 2020.[362] This national survey is one of the primary

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351. *Id.* at 2.

352. *Drinking Water Health Advisories*, U.S. ENV'T PROT. AGENCY (June 15, 2022), https://www.epa.gov/sdwa/drinking-water-health-advisories-has [https://perma.cc/L39K-9CQJ].

353. *Guidelines and Recommendations*, U.S. ENV'T PROT. AGENCY, https://19january2017snapshot.epa.gov/nutrient-policy-data/guidelines-and-recommendations_.html [https://perma.cc/TD6C-FPTK] (last visited Feb. 18, 2023).

354. EPA-810F11001, *supra* note 341.

355. AM. WATER WORKS ASS'N, *supra* note 29, at vi.

356. *Update on Vulnerable Populations Water Advisory*, W. PALM BEACH (June 3, 2021, 5:12 PM), https://www.wpb.org/Home/Components/News/News/1722/16 [https://perma.cc/L7JK-SVLQ].

357. AM. WATER WORKS ASS'N, *supra* note 29, at 5 tbl.3.

358. *Fourth Unregulated Containment Monitoring Rule*, U.S. ENV'T PROT. AGENCY (Dec. 16, 2022), https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule [https://perma.cc/3V5L-QMH9].

359. Revisions to the Unregulated Contaminant Monitoring Rule (UCMR 4) for Public Water Systems and Announcement of Public Meeting, 81 Fed. Reg. 92666 (Dec. 20, 2016) (codified at 40 C.F.R. § 141).

360. U.S. ENV'T PROT. AGENCY, THE FOURTH UNREGULATED CONTAMINANT MONITORING RULE (UCMR 4) GENERAL INFORMATION 1 (2016), https://www.epa.gov/sites/production/files/2017-03/documents/ucmr4-fact-sheet-general.pdf [https://perma.cc/P2T7-W6UZ].

361. *Id.*

362. U.S. ENV'T PROT. AGENCY, EPA 815-S-22-001, THE FOURTH UNREGULATED CONTAMINANT MONITORING RULE (UCMR 4): DATA SUMMARY, JANUARY 2022 1 (2022), https://www.epa.gov/sites/default/files/2018-10/documents/ucmr4-data-summary.pdf [https://

sources of information on occurrence and levels of exposure that the EPA will use to develop regulatory decisions for contaminants in the public drinking water supply.[363] Of the thirty chemicals monitored under UCMR 4, nine were cyanotoxins, and one was a cyanotoxin group.[364]

Under the SDWA, the EPA will consider the data from UCMR 4 and other sources, including peer-reviewed literature, to make a regulatory determination on whether to initiate the process to develop NPDWR for these contaminants.[365] The NPDWR are "legally enforceable primary standards and treatment techniques that apply to public water systems" and that protect human health by limiting contaminant levels in drinking water.[366] FDEP implements the SDWA in Florida and has adopted EPA regulations and rules.[367] UCMR 4 reporting is complete, and collection under the Fifth Unregulated Contaminant Monitoring Rule (UCMR 5) is now underway.[368]

With the increase in HABs in Florida, cyanotoxins continue to pose a threat to the State's drinking water. In May 2021, the City of West Palm Beach collected raw water samples from Clear Lake (a source of its drinking water) and finished water at its treatment plant, which showed cylindrospermopsin in the drinking water at levels above the EPA's 0.7-micrograms-per-liter HA.[369] The city issued a water advisory for vulnerable populations and established a point of distribution for the dissemination of bottled water to residents affected by the advisory.[370] Clear Lake receives its water in part from Lake Okeechobee.[371]

Florida should consider establishing its own values even if the EPA does not ultimately adopt NPDWR for cyanotoxins under the SDWA.

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perma.cc/JB8B-42LM].

363. *Id.*

364. U.S. ENV'T PROT. AGENCY, *supra* note 360.

365. *Id.*

366. *National Primary Drinking Water Regulations*, U.S. ENV'T PROT. AGENCY (Jan. 9, 2023), https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations [https://perma.cc/MKT6-2P7L].

367. *Regulated Drinking Water Contaminants and Contaminants of Emerging Concern*, FLA. DEP'T ENV'T PROT. (July 1, 2022, 12:14 PM), https://floridadep.gov/comm/press-office/content/regulated-drinking-water-contaminants-and-contaminants-emerging-concern [https://perma.cc/PQ6J-ADL9]; *Drinking Water Standards and Facts*, FLA. DEP'T ENV'T PROT., https://floridadep.gov/sites/default/files/drinking-water-standards-facts.pdf [https://perma.cc/Y5ZC-NUR2] (last visited Jan. 12, 2023).

368. *Occurrence Data from the Unregulated Contaminant Monitoring Rule (UCMR)*, U.S. ENV'T PROT. AGENCY (Feb. 17, 2023), https://www.epa.gov/dwucmr/occurrence-data-unregulated-contaminant-monitoring-rule [https://perma.cc/9XZ2-CJCW].

369. *Update on Vulnerable Populations Water Advisory*, *supra* note 356.

370. *Id.*

371. Kimberly Miller, *Look at This Lake: Is West Palm's Drinking Water Supply in Danger?*, PALM BEACH POST (July 23, 2019), https://www.palmbeachpost.com/news/20190723/ look-at-this-lake-is-west-palms-drinking-water-supply-in-danger [https://perma.cc/ZA53-BNDG].

While the federal government establishes NPDWR that the states follow, states can establish their own drinking water standards that are no less stringent than the NPDWR.[372] States have also adopted standards for contaminants not regulated under the NPDWR.[373] Under the Florida Safe Drinking Water Act, FDEP appears to have the authority to develop state standards for contaminants otherwise not regulated by the EPA.[374]

Florida's residents and visitors would be well served if the state were to follow the lead of Ohio and other states and develop guidance values, including "do not drink" levels for cyanotoxins. Doing so would lead to consistent and uniform monitoring and tracking of cyanotoxins in the state's drinking water supply and would enable local authorities to obtain clear guidance and instructions from FDEP and the Florida Department of Health (FDOH) about what specific reporting and other protective measures must be taken to protect public health—particularly vulnerable populations. This would also help ensure that there are no significant delays between the time that sampling reveals cyanotoxin levels are at levels that pose a risk to human health and the time that drinking water advisories are issued by county health departments.[375]

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372. 40 C.F.R. § 142.10(a) (1996); *see, e.g.*, FLA. STAT. § 403.853(1)(a)1. (2022) (stating that FDEP shall adopt and enforce "[s]tate primary drinking water regulations that shall be no less stringent at any given time than the complete interim or revised national primary drinking water regulations in effect at such time").

373. For example, several states have promulgated standards for per- and polyfluoroalkyl substances (PFAS) in the absence of national primary drinking water standards. *See, e.g.*, *Contaminant Levels (MCLs)*, MICHIGAN PFAS ACTION RESPONSE TEAM, https://www.michigan.gov/pfasresponse/0,9038,7-365-95571_99970---,00.html [https://perma.cc/Z54P-TLW9] (last visited Feb. 19, 2023). Michigan cited the lack of enforceable federal standards for PFAS chemicals during the development of its state drinking water standards. *See Drinking Water Rule Promulgation*, MICH. DEP'T OF ENV'T, GREAT LAKES, & ENERGY, https://www.michigan.gov/egle/0,9429,7-135-3313_3675_3691-9647--,00.html [https://perma.cc/YMG7-8ZA3] (last visited Feb. 19, 2023).

374. Florida implements SDWA drinking water standards under Florida Administrative Code Rule 62-550 (2022). Florida's regulations state that the scheme of the federal Safe Drinking Water Act "was to give primary responsibility for public water systems programs to states to implement a public water system program." FLA. ADMIN. CODE ANN. r. 62-550.102 (2022). The Florida Legislature enacted the Florida Safe Drinking Water Act, Sections 403.850 to 403.864, Florida Statutes (2022), and FDEP promulgated regulations to implement the requirements of the Act "and to acquire and maintain primacy for Florida under the Federal Act." FLA. ADMIN. CODE ANN. r. 62-550.102 (2022). Florida's rules adopt national primary and secondary drinking water standards of the federal government where possible "and otherwise create additional rules to fulfill state and Federal requirements." *Id.*

375. In the case of the May 2021 water advisory in West Palm Beach, Florida, it appears the city did not receive guidance from FDOH until nine days after the sampling results indicated elevated levels of cylindrospermopsin. *See* Danielle Waugh, *City of West Palm Beach Defends Waiting 10 Days to Alert Public About Toxic Water*, CBS 12 NEWS (June 1, 2021), https://cbs12.com/news/local/city-of-west-palm-beach-defends-waiting-10-days-to-alert-public-about-toxic-water-06-01-2021 [https://perma.cc/F8B8-5H65].

2. Florida Should Establish Water Quality Criteria for Microcystins and Cylindrospermopsin in Recreational Waters

In consideration of the human health effects of cyanotoxins resulting from recreational exposure, in 2016, the EPA published draft recommended values for microcystins and cylindrospermopsin under Section 304(a) of the CWA "for states to consider as the basis for swimming advisories for notification purposes in recreational waters to protect the public."[376] In developing these recommended values, the EPA noted that states may also consider using these values when adopting new or revised water quality standards.[377] If adopted as water quality standards and approved by the Agency under Section 303(c) of the CWA, the recommended values could be used for all CWA purposes.[378] States can also use the values as swimming advisory values.[379] The EPA envisioned that if states decided to use the values as swimming advisory values, they would do so in a manner similar to their current recreational water advisory programs.[380] On May 22, 2019, the EPA issued its final Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin.[381]

Although a state is not required to adopt new or revised criteria for parameters for which the EPA has published new or updated CWA Section 304(a) criteria recommendations, the state must provide an explanation when it submits the results of its triennial review to the Regional Administrator of the EPA consistent with Section 303(c)(1) of the CWA and the requirements of 40 C.F.R. § 131.20(c).[382]

Some states severely impacted by HABs are acting to protect their residents and visitors from cyanotoxins. For example, Ohio produced a response strategy with the EPA to establish a recreational use standard and advisory protocol for cyanotoxins.[383] Twenty-two states have

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376. U.S. ENV'T PROT. AGENCY, *supra* note 19, at 1. The EPA recommended values protective of primary contact recreation for microcystins at four micrograms per liter and for cylindrospermopsin at eight micrograms per liter. *Id.* at 2.

377. *Id.* at 1.

378. *Id.*

379. *Id.*

380. *Id.* at 1–2.

381. U.S. ENV'T PROT. AGENCY, RECOMMENDED HUMAN HEALTH RECREATIONAL AMBIENT WATER QUALITY CRITERIA OR SWIMMING ADVISORIES FOR MICROCYSTINS AND CYLINDROSPERMOPSIN *passim* (2019), https://www.epa.gov/sites/default/files/2019-05/documents/hh-rec-criteria-habs-document-2019.pdf [https://perma.cc/V4GD-G8J3]. The EPA's final recommended values are eight micrograms per liter for microcystins and fifteen micrograms per liter for cylindrospermopsin. *Id*. at 16–17.

382. 40 C.F.R. § 131.20(a).

383. OHIO DEP'T OF HEALTH ET AL., STATE OF OHIO HARMFUL ALGAL BLOOM RESPONSE STRATEGY FOR RECREATIONAL WATERS *passim* (2020), https://epa.ohio.gov/static/Portals/35/hab/

implemented HAB response guidelines in the event of a significant bloom in recreational waterways.[384] These include specific criteria for analyzing the severity of a bloom and the actions—public advisories, posted warnings, waterway, or beach closures, among others—that correspond to a bloom that meets a certain threshold.[385]

In Florida, following the EPA's release of its final recommended water criteria for cyanotoxins, the Center for Biological Diversity, Sanibel Captiva Conservation Foundation, and Calusa Waterkeeper petitioned FDEP to establish water quality criteria for microcystins and cylindrospermopsin.[386] FDEP indicated that it would consider adopting such criteria during its triennial review of the state's water quality standards.[387] More than two years later, however, FDEP indicated that it does not intend to adopt water quality criteria for cyanotoxins, despite the Florida Blue Green Algae Task Force recommending that it do so.[388] In declining to establish standards, FDEP had concerns regarding how the EPA's final 2019 recommended criteria were derived and determined that chlorophyll-*a* could be used as a proxy for cyanotoxins instead.[389]

While FDEP is justified in its concerns about how EPA's 2019 final recommended criteria were derived,[390] the CWA regulations do not

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HABResponseStrategy.pdf?ver=2020-10-28-164629-413#:~:text=The%20purpose%20of%20the%20Ohio,from%20cyanotoxins%20produced%20by%20cyanobacteria [https://perma.cc/HYP5-BCXV]; *see* Tom Henry, *What Will Lake Erie's Impairment Mean for Northwest Ohio?*, TOLEDO BLADE (Mar. 25, 2018), https://www.toledoblade.com/local/2018/03/24/What-will-Lake-Erie-s-impairment-mean-for-northwest-Ohio.html [https://perma.cc/FEU8-QLMD] (discussing how, following severe HABs in Lake Erie and prompted by subsequent litigation challenging EPA's review of Ohio's biennial impaired waters list, Ohio designated a sixty-mile portion of western Lake Erie as "impaired").

384. *Guidelines and Regulations*, U.S. ENV'T PROT. AGENCY, https://19january2017snapshot.epa.gov/nutrient-policy-data/guidelines-and-recommendations_.html [https://perma.cc/4MZS-V257] (last visited Feb. 19, 2023).

385. *Id.*

386. Petition for Rulemaking, *supra* note 284, at 2.

387. Order from Fla. Dep't of Env't Prot., In re: Petition for Rulemaking, No. 19-0419 (June 24, 2019) (on file with authors); Letter from Ctr. for Biological Diversity et al. to Kaitlyn Sutton, Fla. Dep't of Env't Prot. 2–3 (Nov. 18, 2019), https://www.biologicaldiversity.org/programs/environmental_health/pdfs/Comments-on-Florida-Triennial-Review.pdf [https://perma.cc/VQ9T-4FNW].

388. DIV. OF ENV'T ASSESSMENT & RESTORATION, FLA. DEP'T OF ENV'T PROT., TRIENNIAL REVIEW OF FLORIDA'S WATER QUALITY STANDARDS 81–94 (2021), http://publicfiles.dep.state.fl.us/DEAR/DEARweb/Standards/Triennial%20Review%202019-2021/May%202021%20Workshop%20Technical%20Documents/MayPublicWorkshop3_19_21_All_Slides-FINAL%20PDF.pdf; FLA. DEP'T OF ENV'T PROT., *supra* note 322, at 9.

389. DIV. OF ENV'T ASSESSMENT & RESTORATION, *supra* note 388, at 85, 89.

390. Unlike the draft criteria, the final recommended values eliminate the "relative source contribution" (RSC) and assume that all cyanotoxin exposure is from ingestion and not from inhalation, dermal absorption, or eating contaminating fish or shellfish. *Compare* U.S. ENV'T PROT. AGENCY, *supra* note 19, at 37, 44, *with* U.S. ENV'T PROT. AGENCY, *supra* note 381, at 58. The decision to drop the RSC not only seems to ignore the mounting evidence that people can be

preclude FDEP from adopting the more protective 2016 EPA draft recommendations, even if there is still some scientific uncertainty regarding acceptable levels of exposure.[391] Indeed, the precautionary principle counsels in favor of adopting the criteria now even if there is still some scientific uncertainty.[392] Despite the reliance on chlorophyll-*a*, chlorophyll-*a* is an inappropriate proxy for cyanotoxins for characterizing impairment because the conditions that promote or suppress chlorophyll-*a* in water are different than the conditions that allow for cyanotoxins, such as microcystin from cyanobacteria.[393]

The establishment of water quality criteria for cyanotoxins in Florida's surface waters would make a significant difference in controlling HABs, protecting people from the harmful effects of exposure to cyanobacteria, and preventing further damage to local communities that depend on the state's waters to support their economies. By promulgating water quality criteria for cyanotoxins, FDEP would establish clear numeric baselines for the state's waters, which are used as sources of drinking water, places to recreate, areas to propagate and harvest shellfish, and habitat for the state's abundant and diverse wildlife.

3. Florida Should Improve its HAB Monitoring and Notification Systems

Florida should also develop clearly defined procedures for notifying the public when HABs are present in recreational waters. Under Florida's qualitative guidelines, when a cyanobacteria bloom is present, the

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exposed to cyanotoxins through multiple pathways, but it also appears to deviate from longstanding EPA policy. EPA policy dating back to 2000 recommends the use of an RSC to account for multiple exposure pathways to pollutants like cyanotoxins. *See* U.S. ENV'T PROT. AGENCY, *supra* note 19, at 44 (stating that the EPA recommends using an RSC to calculate ambient water quality criteria). The EPA has indicated that "[t]he policy of considering multiple sources of exposure when deriving health-based criteria has become common in EPA's program office risk characterizations and criteria and standard-setting actions." U.S. ENV'T PROT. AGENCY, EPA-822-B-00-004, METHODOLOGY FOR DERIVING AMBIENT WATER QUALITY CRITERIA FOR THE PROTECTION OF HUMAN HEALTH 4-4 (2000) [hereinafter EPA-822-B-00-004].

391. 40 C.F.R. § 131.20 (1983) (amended 2015).

392. As the Hawaii Supreme Court explained in a case upholding the state's regulation of certain consumptive uses, the precautionary principle means that "where there are present or potential threats of serious damage, lack of full scientific certainty should not be a basis for postponing effective measures to prevent environmental degradation. 'Awaiting for certainty will often allow for only reactive, not preventive, regulatory action.'" *In re* Water Use Permit Applications, 9 P.3d 409, 466 (Haw. 2000) (quoting Ethyl Corp. v. U.S. Env't Prot. Agency, 541 F.2d 1, 25 (D.C. Cir. 1976)).

393. Letter from Ctr. for Biological Diversity et al. to Avril Wood-McGrath, Fla. Dep't of Env't Prot. 4 (May 19, 2021) [hereinafter Letter], https://www.biologicaldiversity.org/programs/environmental_health/pdfs/Triennial-Review-Comments-Cyanotoxins.pdf [https://perma.cc/8D75-85YM].

recommended action is a health advisory alerting people to avoid the bloom.[394]

These qualitative guidelines are insufficient because a visible surface scum, or other clear visual indicators, must be present *before* a health advisory is issued and before people are notified to avoid waters impacted by a HAB.[395] In the case of cyanotoxins, "cylindrospermopsin-producing cyanobacteria do not tend to form visible surface scums[,] and the highest concentrations occur below the water surface."[396] Further, "[m]icrocystins can persist even after a bloom is no longer visible[,] and cyanotoxin concentrations can be higher after the initial bloom fades."[397] Therefore, people could be exposed to cyanotoxins while recreating in waters that are not the subject of a health advisory. Quantitative guidelines, by contrast, "set levels that can be routinely monitored for and serve as clear trigger points for public health officials" to act.[398]

Unfortunately, even when a HAB is observed, state agencies have failed to promptly notify the public and close affected waters to recreation.[399] FDOH's response to HABs in 2018 sparked significant criticism from the media and the public,[400] and the Agency has struggled to address the concerns of numerous residents affected by HABs.[401]

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394. U.S. ENV'T PROT. AGENCY, *supra* note 19, at 12, B-18 tbl.B-3.

395. Letter, *supra* note 393, at 6.

396. *Id.*

397. *Id.* For example, in its 2016 draft recommended criteria, EPA cited a study that found dissolved microcystin-LA was present in waters at a concentration of twenty micrograms per liter or more for 9.5 weeks even though the bloom was not visible after five weeks. U.S. ENV'T PROT. AGENCY, *supra* note 19, at 31.

398. Letter, *supra* note 393, at 6. Florida should also restore its water quality monitoring program. Over the last decade, the number of monitoring stations dropped from 350 to 115 according to Florida International University's Southeast Environmental Research Center. These sites include, among others, Pine Island Sound and Biscayne Bay, which have suffered from several HABs over the past decade. Scientists also point out that what little monitoring is performed is not enough to understand the life and evolution of a bloom, when and where it forms, and to forecast future blooms like Ohio scientists are doing for Lake Erie. *See* Jenny Staletovich, *Florida Gutted Water Quality Monitoring Network – As Killer Algae Increased*, TAMPA BAY TIMES (Aug. 7, 2018), https://www.tampabay.com/florida-politics/buzz/2018/08/07/florida-gutted-water-quality-monitoring-as-killer-algae-increased/ [https://perma.cc/4TKV-8F7T].

399. Metcalf et al., *supra* note 21, at 919.

400. *See* Tom Hayden, *Editorial: Health Department Ignorant to Water Crisis*, NEWS-PRESS (Aug. 21, 2018, 2:19 PM), https://www.news-press.com/story/opinion/2018/08/21/toxic-algae-florida-health-Department-ignorant-water-crisis/1051336002/ [https://perma.cc/XFP2-4BC5] ("The Florida Department of Health is failing residents and tourists on many fronts when it comes to massive blue-green algal blooms and the spread of red tide.").

401. Amy Bennett Williams, *Florida Department of Health Emails Show Agency Struggled to Manage Algae Crisis*, NEWS-PRESS (Apr. 7, 2019, 6:00 AM), https://www.news-press.com/story/news/2019/04/07/florida-health-Department-emails-show-struggle-manage-toxic-algae-crisis/3275715002/ [https://perma.cc/KP63-44UE].

Additionally, scientists, researchers, and physicians have questioned FDOH's position on the health effects of cyanotoxins and its response to HABs.[402] In 2018, several researchers expressed concerns about the potential long-term implications of the state's failure to immediately notify the public of the harm caused by HABs.[403] These researchers detailed that public health authorities were slow to publish information on the toxicological risks of the 2016 HABs.[404] They expressed concern about the potential long-term health risks for individuals exposed to the 2016 HABs and explained that "closure or restriction of access to the waters should have occurred rapidly, if not immediately, with continuous monitoring to determine potential adverse health effects."[405]

FDOH and FDEP should develop a more robust plan for notifying the public about the dangers of HABs. The plan should include a public notification procedure that requires local health departments to immediately post signs whenever waters exhibit surface scum *or* exceed the state water quality criteria for cyanotoxins established by FDEP. To ensure government transparency and accountability, these signs and other communications, such as press releases, should explain what the numeric criteria mean and how human health and the environment may be impacted when these criteria are exceeded. They should also provide an Internet link to the state's BMAP program where the public can learn more about the conditions that fuel algal blooms, what specific actions are being taken to achieve the load reductions necessary to reduce or avoid algal blooms in the future, and, as explained below, how the public can track the state's progress. Non-English language versions of the communications should be available so that all of Florida's diverse population can benefit from these notifications.

B. *Florida Should Put the "Best" into Best Management Practices*

Florida, like other states, relies predominately on the use of BMPs to manage nonpoint source pollution.[406] The state defines BMP as a practice or a combination of practices determined by FDACS, FDEP, and the water management districts, based on research, field testing, and expert review, to be the most effective and practicable on-location means for

402. Amy Bennett Williams, *Florida Toxic Algae a Long-Term Health Concern, According to Scientists, Researchers*, NEWS-PRESS (Aug. 22, 2018, 6:00 AM), https://www.news-press.com/story/news/2018/08/22/toxic-algae-florida-scientists-question-health-Departments-stand/973593002/ [https://perma.cc/VT73-EP44].

403. Metcalf et al., *supra* note 21, at 926.

404. *Id.* at 921.

405. *Id.* at 926.

406. FLA. STAT. § 403.067 (2022); Robin Kundis Craig, *Local or National? The Increasing Federalization of Nonpoint Source Pollution Regulation*, 15 J. ENV'T L. & LITIG. 179, 182 (2000).

improving water quality in agricultural and urban discharges.[407] These discharges "shall reflect a balance between water quality improvements and agricultural productivity."[408]

BMPs in the northern Lake Okeechobee basins have been classified as three types. Level I BMPs primarily focus on nutrient management actions by the producer and landowner, such as fertilizer selection, application rate and timing, and recordkeeping.[409] Level II BMPs are more labor- and time-intensive and, unlike most Level I BMPs, require structural modifications such as fencing, improved irrigation systems, and wetland or storm water retention systems.[410] These are often funded through cost-share programs following the implementation of Level I BMPs.[411] Level III BMPs typically involve chemical technologies, such as aluminum and iron chloride, or edge-of-field storm water retention or detention, and are applied after Level I and II BMPs.[412] Level II and III BMPs may need to be implemented based on site-specific needs identified by assessment questions within FDACS's BMP manuals.[413]

While FDEP is responsible for developing nonagricultural BMPs, FDACS is responsible for developing and adopting by rule BMPs for nonpoint agricultural pollutant sources in consultation with FDEP, FDOH, water management districts, as well as agricultural and environmental representatives.[414] These rules must incorporate provisions for a notice of intent to implement the BMPs and a system to assure the implementation of the BMPs, including site inspection and recordkeeping requirements.[415] The Florida statute requires FDEP to verify the effectiveness of BMPs at representative sites.[416] The implementation of BMPs initially verified to be effective by FDEP "shall provide a presumption of compliance with state water quality standards."[417] The statute further requires that "[w]hen water quality problems are demonstrated, despite the appropriate implementation, operation, and maintenance of best management practices and other measures . . . [FDEP], a water management district, or [FDACS], in

407. FLA. STAT. § 373.4595(2)(a) (2022).

408. *Id.*

409. FLA. DEP'T OF AGRIC. & CONSUMER SERVS., WATER QUALITY/QUANTITY BEST MANAGEMENT PRACTICES FOR FLORIDA VEGETABLE AND AGRONOMIC CROPS 7 (2015), https://www.fdacs.gov/content/download/77230/file/vegAgCropBMP-loRes.pdf [https://perma.cc/VSW5-RLNE].

410. *Id.*

411. *Id.*

412. *Id.*

413. *Id.*

414. FLA. STAT. § 403.067(7)(c)1.–2. (2022).

415. *Id.* § 403.067(7)(c)2.

416. *Id.* § 403.067(7)(c)3.

417. *Id.*

consultation with [FDEP], shall institute a reevaluation of the best management practice or other measure."[418] If the reevaluation determines that the BMP or other measure requires modification, FDEP, a water management district, or FDACS, must revise the rule to require implementation of the modified practice within a reasonable time period as specified in the rule.[419]

At least every two years, FDACS must perform onsite inspections of each agricultural producer that enrolls in a BMP to ensure that such practice is being properly implemented.[420] This verification includes a collection and review of the BMP documentation from the previous two years, including, but not limited to, nitrogen and phosphorus fertilizer application records.[421] FDACS is further required to initially prioritize inspection of agricultural producers located in the BMAPs for Lake Okeechobee, the IRL, the Caloosahatchee River and Estuary, and Silver Springs.[422]

Despite the requirements in Florida's statutory provisions, annual total phosphorus reductions have remained essentially flat,[423] and the state must acknowledge that its reliance on the existing BMP program will not achieve phosphorus and nitrogen loading targets.[424] Progress has been hampered by the failure of many agricultural producers to enroll in the BMP program, delays in BMP implementation and verification, and the lack of monitoring to evaluate the effectiveness of BMPs.[425] As has been the case in other jurisdictions, without greater accountability, it is unlikely that water quality conditions will improve.[426] Below is a discussion of these regulatory failures and several recommendations for

418. *Id.* § 403.067(7)(c)4.

419. *Id.*

420. FLA. STAT. § 403.067(7)(d)3. (2022).

421. *Id.*

422. *Id.*

423. FLA. DEP'T OF ENV'T PROT., *supra* note 40, at 19 fig.ES-2; *see* Khare et al., *supra* note 302, at 2 (noting that, despite a long regulatory history, no reduction in total phosphorous loading to Lake Okeechobee has occurred since 1990).

424. GRAHAM ET AL., *supra* note 33, at 64; *see* John Seewer, *Plan to Fight Lake Erie's Algae Would Force Changes on Farms*, WKYC (Mar. 23, 2018, 10:26 AM), https://www.wkyc.com/article/weather/environment/plan-to-fight-lake-eries-algae-would-force-changes-on-farms/95-531284003 [https://perma.cc/FQ9S-A233] (discussing how, in Ohio, Governor Kasich's administration developed new proposals to combat algal blooms in Lake Erie).

425. GRAHAM ET AL., *supra* note 33, at 63.

426. *See* David K. Mears & Rebecca A. Blackmon, *Lessons for Lake Champlain from Chesapeake Bay: Returning Both Waters to the "Land of Living"*, 17 VT. J. ENV'T. L. 564, 569 (2016) ("To date, the effectiveness of TMDLs in achieving this goal has been mixed, largely due to the lack of an accountability mechanism to ensure that the implementation plans developed for those TMDLs were in fact implemented."); *see also* Andreen, *supra* note 34, at 271–72 (discussing how non-regulatory mechanisms have been overwhelmingly relied upon to implement TMDLs and how CWA goals will likely not be met unless something other than a voluntary approach is taken to nonpoint source pollution).

how the state legislature could strengthen the law to bring greater accountability to BMP programs.

1. The Legislature Should Accelerate BMP Implementation, Verification, Reevaluation, and Adoption Schedules

While agricultural producers must "implement" BMPs to enjoy a presumption of compliance with water quality standards, other statutory provisions and rules may be contributing to delays in implementing effective BMPs and achieving water quality standards.[427] From the start, FDACS's regulations for implementing BMP programs do not require the immediate implementation of BMPs after a producer submits a notice of intent (NOI) but rather "as soon as practicable, but no later than 18 months after submittal of the NOI."[428] Even after implementation occurs, the BMPs may not achieve the desired results because the presumption of compliance with water quality standards is triggered once FDEP makes its initial verification that BMPs are effective based on its "best professional judgment."[429] The presumption applies even if FDEP has not performed its final verification at representative sites to determine whether the BMPs being used are effective in practice.[430] Further, although water quality monitoring is one of the most important aspects of any nonpoint source control program and could help quantify the efficacy of BMPs,[431] there are no statutory provisions that expressly allow for the statutory presumption to be rebutted and for the agencies to require changes to the producer's BMPs if water quality monitoring shows that the BMPs being used at the site are ineffective.[432] Therefore, until FDEP

427. Despite the statutory requirement that producers implement BMPs to qualify under the safe harbor provision, the regulatory structure has not rigorously adhered to this requirement, as Professor Angelo has previously documented. *See* Angelo, *supra* note 34, at 1032 (examining the potential "gaping loopholes" in BMP manuals for farmers who do not want to implement BMPs).

428. FLA. ADMIN. CODE ANN. r. 5M-6.004 (2022).

429. OFF. OF AGRIC. WATER POL'Y, FLA. DEP'T OF AGRIC. & CONSUMER SERVS., STATUS OF IMPLEMENTATION OF AGRICULTURAL NONPOINT SOURCE BEST MANAGEMENT PRACTICES 5–6 (2022), https://www.fdacs.gov/ezs3download/download/104912/2726091/Media/Files/Marketing-Development-Files/09124-FDACS-OAWP-Annual-Report-2022.pdf [https://perma.cc/KDP8-KM2Z].

430. FLA. STAT. § 403.067(7)(c) (2022).

431. Angelo, *supra* note 34, at 1034.

432. Unlike in the region north of Lake Okeechobee and elsewhere in the state, water quality monitoring is a core component of the state's BMP program in the Everglades Agricultural Area (EAA), south of the lake. A federal consent order imposes a strict limit on the amount of phosphorus entering the lake from the EAA and imposes permitting requirements on agricultural producers to implement BMP and water quality monitoring plans to ensure compliance. *See* U.S. v. S. Fla. Water Mgmt. Dist., 847 F. Supp. 1567, 1570 (S.D. Fla. 1992). Agricultural producers located in the EAA or C-139 Basin implement BMPs that are governed by permits issued by the South Florida Water Management District (SFWMD) under the Florida Administrative Code. *See* FLA. ADMIN. CODE ANN. r. 40E-63 (2022). Among other requirements, SFWMD's "Works of the

makes a final determination regarding the effectiveness of these BMPs with representative site monitoring, agricultural producers can implement inferior BMPs, resulting in little progress towards reaching TMDL water quality targets. Even then, the statute does not compel immediate action if it is discovered that existing BMPs are not working. Although the statute requires the agencies to reevaluate and develop new BMPs in these instances, the only requirement is that they do it "within a reasonable time."[433]

To accelerate progress toward meeting the TMDL pollution reduction targets, the state legislature should consider amending the statutes to require more immediate implementation of BMPs, providing the relevant agencies with the express authority to overcome the presumption of compliance if water quality monitoring reveals that BMPs are not effective in reducing pollution,[434] and mandating specific deadlines for FDEP to make final BMP verifications as well as reevaluate and develop new BMPs when water quality problems are detected.

In addition, the legislature could provide FDEP and FDACS with the statutory authority to require additional recordkeeping, monitoring, and reporting for BMPs as additional backstops in future BMAPs if TMDL

District" (WOD) program requires permit applicants to submit and implement a BMP plan which includes "a monitoring plan to verify BMP implementation, operation and effectiveness." FLA. ADMIN. CODE r. 40E-63.136(1) (2022). Permit applicants must also submit "an acceptable water quality monitoring plan which provides reasonable assurance that annual water discharge and total phosphorus load are accurately documented." *Id.* r. 40E-63.136(2). FDACS does not perform site visits on these 109 producers that have enrolled in the BMP program because they are subject to site visits and permitting oversight by SFWMD. *See* OFF. OF AGRIC. WATER POL'Y, FLA. DEP'T OF AGRIC. & CONSUMER SERVS., STATUS OF IMPLEMENTATION OF AGRICULTURAL NONPOINT SOURCE BEST MANAGEMENT PRACTICES 10–11 (2021), https://www.fdacs.gov/ezs3download/download/98382/2665697/Media/Files/Agricultural-Water-Policy-Files/BMP-Implementation/2021-status-of-bmp-implementation-report.pdf [https://perma.cc/45SP-NJEQ]. Permittees are subject to monitoring and enforcement action by the SFWMD for failing to comply with an approved monitoring plan or BMP plan requirements. *See* FLA. ADMIN. CODE ANN. r. 40E-63.145 (2022). In the EAA Basin where the Everglades Forever Act mandates a twenty-five percent reduction in total phosphorus loads, there has been a sixty-three percent reduction of observed loads. *See* GRAHAM ET AL., *supra* note 33, at 70. Although the SFWMD once required most producers north of Lake Okeechobee to similarly obtain permits if their properties connected to, made use of, or altered WOD, SFWMD eliminated these requirements in its most recent rulemaking. *Compare* FLA. ADMIN. CODE ANN. r. 40E-61 (1989), *with* FLA. ADMIN. CODE ANN. r. 40E-61 (2022). The SFWMD still maintains a water quality monitoring program in the region. *See* FLA. ADMIN. CODE ANN. r. 40E-61 (2022).

433. FLA. STAT. § 403.067(7)(c)(4) (2022).

434. While the EAA is a far more homogenous and engineered system, and therefore it may not be practicable to apply the same permitting scheme north of Lake Okeechobee, more can be done in this region to ensure BMPs are effective. For example, the SFWMD's water quality program under the Florida Administrative Code could greatly inform the process for determining when BMPs are not meeting water quality standards. *See* FLA. ADMIN. CODE ANN. r. 40E-61 (2022).

pollution load reduction milestones are not being achieved. With technical assistance from FDACS and FDEP, producers opting to implement BMPs rather than engage in water quality monitoring could be required to document the measures they have chosen to implement and monitor their effectiveness. This would ensure that BMPs are indeed being implemented and then reviewed by agencies to help determine which measures are effectively reducing runoff and nutrient loads into the system and which adaptive management actions must be taken when BMPs are not performing as intended.

2. The Legislature Should Fully Fund FDACS and FDEP to Verify BMP Implementation and Effectiveness

In Florida, state law requires FDACS to verify that producers are implementing the BMPs they say they are using in their NOIs.[435] To this end, FDACS makes site visits that include a review of nutrient and irrigation management records.[436] Yet problems such as significant backlog, insufficient staff, and limited resources undermine these site visits.[437] According to FDACS's 2021 report to the Governor and state legislature, FDACS performed site visits on only twenty percent of agricultural acres "enrolled" in the program statewide.[438] Therefore, it is possible that at least in some instances, BMPs are not being fully or properly implemented because FDACS has not visited these sites to determine the status of BMP implementation.

Indeed, as FDEP explains in its 2020 update to the Lake Okeechobee BMAP, BMP enrollment "falls well short of the full enrollment requirement under law, and for those producers that have enrolled, onsite verification of BMP implementation is insufficient."[439] FDEP further explains:

> This insufficiency in agricultural BMP enrollment and implementation verification is a constraint to achieving the TMDL in 20 years, and to address this constraint it is paramount that FDACS carries out its statutory authority and fulfills its statutory obligations by more actively engaging agricultural nonpoint sources to enroll in BMPs and by adequately verifying BMP implementation.[440]

435. FLA. STAT. § 403.067(7)(c)(2) (2022).

436. OFF. OF AGRIC. WATER POL'Y, *supra* note 432, at 10. Prior to August 2019, FDACS also relied on self-reporting through producer surveys to verify BMP implementation. *Id.* at 12.

437. *Id.* at 3.

438. *Id.* at 2, 13.

439. FLA. DEP'T OF ENV'T PROT., *supra* note 40, at 16.

440. *Id.*

According to the 2020 updates to the BMAP, "FDACS has requested funding for additional positions to enable it to ensure full BMP enrollment and implementation verification."[441] It appears progress was made in 2021, as FDACS was allocated funding to hire eight additional positions,[442] but the state legislature needs to make BMP verification a long-term priority and adequately fund FDACS to provide the staff and resources needed to develop updated BMP manuals and visit every producer and operator every two years. Moreover, the legislature needs to provide additional funding to FDEP to perform more initial and final verifications to ensure that BMPs are working and bring enforcement actions against those who do not implement the BMPs.

3. The Legislature Should Strengthen Enforcement Procedures for BMP Non-Compliance

FDACS has the authority to require landowners and producers not implementing BMPs to come into compliance through a "corrective" phase, and, if necessary, through a "remedial" phase if corrective action is not taken.[443] If remedial measures are not implemented by the scheduled date of completion, FDACS must notify FDEP within sixty days.[444] BMAPs and management strategies, including BMPs and water quality monitoring, are enforceable under the statute,[445] and FDEP has the authority to enforce these statutory requirements under its general enforcement authorities.[446] It remains unclear, however, what penalties are in place for not implementing remedial measures and when they would be enforced.[447] It is also unclear what specific enforcement measures are in place and the type of penalties that can be assessed for not implementing a water quality monitoring program.[448] Given the significant percentage of unenrolled acres in the BMAP areas,[449] there must be clear enforcement timelines and legal consequences for those not implementing BMPs or a water quality monitoring program. The legislature should amend the Florida Statutes to specify when enforcement action can be taken after FDACS informs FDEP of a person's noncompliance, what specific enforcement measures can be taken against a person who refuses to implement corrective and remedial

441. *Id.* at 53.
442. Awasthi & DeMeo, *supra* note 334, at 54.
443. FLA. ADMIN. CODE ANN. r. 5M-1.009(1)(a)–(b) (2022).
444. *Id.* r. 5M-1.009(2).
445. FLA. STAT. § 403.067(7)(d)(1) (2022).
446. FLA. STAT. §§ 403.021, .131, .141, .151, .161 (2022).
447. Awasthi & DeMeo, *supra* note 334.
448. FLA. ADMIN. CODE ANN. r. 62-307 (2022).
449. OFF. OF AGRIC. WATER POL'Y, *supra* note 432, at 2, 13. In the Caloosahatchee Estuary BMAP area, eighty-five percent of agricultural lands were enrolled in the BMP program as of 2021. *Id.* at 24.

measures, and what administrative penalties can be assessed. Currently, there is no clear regulatory process for identifying parties that have refused to enroll in the BMP program and referring them to DEP, and no notice and cure provisions or cut-off period to preclude a landowner from filing a notice of intent to implement BMPs to avoid water quality monitoring. The penalties for not implementing a water quality monitoring plan remain unclear.[450] To bring greater clarity to the enforcement process, the legislature could establish administrative penalties for failing to enroll or implement BMPs under Section 403.121, Florida Statutes (2022), which already establishes administrative penalties for various types of violations. Doing so would not only put parties on notice of the financial consequences of not enrolling in the program or performing water quality monitoring but would also likely encourage greater BMP enrollment and potentially less nutrient pollution from entering the watersheds.

4. State Agencies Should Improve BMP Effectiveness Monitoring and Information Sharing, Regularly Review BMPs and Update BMP Manuals, and Prioritize Advanced BMPs in Pollution "Hotspots"

States can take several additional steps to bring greater transparency and accountability to their BMP programs. In Florida, the legislature can provide FDACS with the direction and resources to develop pilot programs to continually study BMPs in action, rather than depending mostly on FDEP's initial verification to determine their effectiveness. The programs would provide FDACS with the resources necessary to continually evaluate BMP effectiveness across a range of agricultural uses and locations. By monitoring BMP effectiveness at representative sites, the agencies might be able to collect important information like that obtained through the SFWMD's WOD program, even if the heterogeneity of the landscape may provide different challenges or limitations. The pilot program could include certain incentives to encourage landowner participation.

There must also be greater information sharing and interagency coordination to ensure BMPs result in the water quality improvements that FDEP predicted they would have at the time of their initial verification. FDEP, FDACS, and SFWMD must act in furtherance of the legislature's intent and work together to reduce pollutants and achieve water quality standards in Lake Okeechobee, Caloosahatchee, and St. Lucie watersheds through the BMAP and TMDL programs. To this end, FDEP must consistently use the water quality data collected by the SFWMD to track the state's progress toward meeting specific sub-

450. Telephone Interview with Elizabeth Fata Carpenter, Managing Att'y, Everglades L. Ctr. (July 8, 2021); FLA. STAT. § 403.067 (2022); FLA. ADMIN. CODE ANN. r. 62-307 (2022).

watershed load allocations and achieving the TMDL. The SFWMD has an extensive and robust water quality monitoring network, which has recently expanded under Executive Order 19-12,[451] and it needs to be utilized to achieve the state's water quality goals.[452]

FDACS should also regularly review, and update as necessary, their BMP manuals to ensure BMPs are based on the best available science.[453] Presently, FDACS *intends* to update these manuals every five years.[454] The review process should be conducted more frequently and in consultation with the University of Florida Institute of Food and Agricultural Sciences and FDEP. It should also be informed by the aforementioned pilot program and SFWMD's water quality monitoring data, particularly where nutrient levels are high or trending upward. BMPs should then be revised and updated accordingly, and FDEP should update the BMAP to reflect these changes. FDEP should also conduct final BMP verifications to facilitate this process.

In addition to strengthening BMP effectiveness monitoring and information sharing between the agencies and requiring FDACS to regularly review BMPs and update BMP manuals when necessary, the legislature should prioritize funding the development and implementation of Type III BMPs in areas that have been identified as hotspots for phosphorus pollution. These newer and emerging field-verified BMPs and in-situ technologies immobilize legacy phosphorus and will likely be necessary to address legacy phosphorus and hot spots.[455] BMAPs should specifically identify the areas requiring these BMPs, establish an

451. *See 12/8/21 Department of Environmental Protection's Blue-Green Algae Task Force*, FLA. CHANNEL (Dec. 8, 2021), https://thefloridachannel.org/videos/12-8-21-department-of-environmental-protections-blue-green-algae-task-force/ [https://perma.cc/NR46-YMZM] (discussing the agency's in-lake, basin, and upstream monitoring programs); *see also* Fla. Exec. Order No. 19-12, *supra* note 315, at 1, 3 (directing the FDEP to work with the SFWMD to address stormwater treatment).

452. *See* Gary Goforth, Founder, Gary Goforth, LLC, Presentation at the 2019 Everglades Coalition Conference: Water Quality of Lake Okeechobee and St. Lucie Estuary Watersheds – Are BMAPs Working? (Jan. 11, 2019) [hereinafter Goforth Presentation] (explaining that, rather than using measured data collected by the SFWMD, the Lake Okeechobee BMAP relies on computer models that significantly underestimate nutrient loading). The 2020 Lake Okeechobee BMAP also identifies numerous instances throughout the lake's nine sub-watersheds where FDEP cannot identify nutrient loading trends due to "insufficient data," which further underscores the need for the SFWMD's expanded water quality monitoring programs so that FDEP can accurately measure and track nutrient loads throughout the watershed. *See* FLA. DEP'T OF ENV'T PROT., *supra* note 40, *passim*.

453. FLA. DEP'T OF ENV'T PROT., *supra* note 322, at 5.

454. FLA. DEP'T OF ENV'T PROT., *supra* note 40, at 164. FDEP has indicated that it needs these manuals to be updated no more than five years from the adoption of the BMAP "[t]o expedite further reductions." *Id.* at 56.

455. GRAHAM ET AL., *supra* note 33, at 74, 76.

implementation schedule, and track the pollution load reductions achieved through these advanced technologies.

C. *Florida Should Improve the Framework for Implementing and Revising BMAPs to Provide Reasonable Assurances that Pollution Targets Will be Achieved*

The nonpoint pollution plaguing Lake Okeechobee is much like the nonpoint pollution plaguing Chesapeake Bay, where "dead zones" have diminished the health of the ecosystem.[456]

Plans to clean up Chesapeake Bay began with grassroots efforts in the 1970s, starting with a study to identify the causes of the pollution.[457] The study's results, which attributed the problems to nutrient pollution, led to the Chesapeake Bay Agreement of 1983 signed by several governors and the Mayor of the District of Columbia.[458] A subsequent agreement was produced in 1987, promising more specific ways to cut nitrogen and phosphorous loadings by 2000.[459] Steps were taken to reduce impacts from sewage treatment systems but little was done to address agricultural pollution.[460] By 2000, fifteen years of effort had reduced phosphorous loadings by only twenty-five percent—largely from detergent bans—and nitrogen by only thirteen percent.[461] Another agreement followed, which promised to remove Chesapeake Bay and its tributaries from the list of impaired waters by 2010.[462] Little progress was made and a 2006 General Accountability Office (GAO) report concluded that Chesapeake Bay would remain polluted for decades.[463] A year later, the GAO found that the bay was "actually going backwards."[464] Maryland, Pennsylvania, Virginia, the District of Columbia, Delaware, New York, and West Virginia were required to establish TMDLs for their waters.[465]

If the story were to end here, the history of efforts to clean up the Chesapeake Bay would largely mirror that of Lake Okeechobee—decades of state studies, plans, agreements, promises, and initiatives

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456. *See* K.A. McConnell, *Limits of American Farm Bureau Federation v. EPA and the Clean Water Act's TMDL Provision in the Mississippi River Basin*, 44 ECOLOGY L. Q. 468, 479 (2017) (explaining that sixty-two percent of the bay had insufficient oxygen to support aquatic life and only eighteen percent of the bay had acceptable water clarity).

457. Houck, *supra* note 33, at 10439–40.

458. *Id.* at 10440; Rachel Felver, *Celebrating 35 Years of Restoration*, CHESAPEAKE BAY PROGRAM (Oct. 11, 2018), https://www.chesapeakebay.net/news/blog/celebrating-35-years-of-restoration [https://perma.cc/5GX6-7ZTE].

459. Houck, *supra* note 33, at 10440.

460. *Id.*

461. *Id.*

462. *Id.*

463. *Id.*

464. *Id.*

465. Houck, *supra* note 33, at 10440.

(mostly spurred by citizen action and a few deeply concerned elected officials) that failed to materialize in any meaningful way to curb nutrient pollution. "[V]oluntary . . . measures[] ha[ve] been applied longer in the Chesapeake than any other ecosystem-wide restoration program in the world."[466] As one scholar has observed, the federal cost-share dollars that subsidized many of these measures are "staggering."[467] The parallels with the Florida experience up to this point are rather striking.

But things began to change for the Chesapeake about a decade ago with a "can-do attitude" that stands in sharp contrast with the "reluctant dance" observed in Florida.[468] In 2010, the EPA, with cooperation from six states, D.C., and local governments, developed a TMDL providing a framework of accountability and transparency that establishes allocations among different kinds of sources, a timetable for action, and "reasonable assurances" that it will be implemented.[469] This framework requires the states and D.C. to track progress of the TMDL goals in two-year increments.[470] "If progress is insufficient, the EPA may take 'actions to ensure pollution reductions.'"[471] These actions may include increasing the stringency of pollution limits on point sources, withholding or conditioning federal grants, increasing enforcement against polluters, and instituting greater oversight.[472] It also provides opportunities for the states to adjust their implementation plans as they learn what is or is not working in each phase of implementation.[473] The TMDL "incorporates an adaptive management approach that documents implementation actions, assesses progress, and determines the need for alternative management measures based on the feedback of the accountability framework."[474] This plan may provide the most promising steps toward recovery to date.

Since the adoption of the Chesapeake Bay TMDL, other states have adopted a similar accountability framework, as evidenced by the EPA's 2016 phosphorous TMDL for Lake Champlain.[475] Like the Chesapeake Bay TMDL, the Lake Champlain TMDL includes pollution allocations among the various sources, a timetable for achieving the required reductions in the pollutant load, and reliance upon phased implementation

466. Jamison E. Colburn, *Coercing Collaboration: The Chesapeake Bay Experience*, 40 WM. & MARY ENV'T. L. & POL'Y REV. 677, 678 (2016).

467. *Id.*

468. Houck, *supra* note 33, at 10442.

469. U.S. ENV'T PROT. AGENCY, *supra* note 248; *Chesapeake Bay TMDL Fact Sheet*, U.S. ENV'T PROT. AGENCY (July 20, 2022), https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-tmdl-fact-sheet [https://perma.cc/DM4T-EGYA].

470. Mears & Blackmon, *supra* note 426, at 579.

471. *Id.*

472. *Id.*

473. Mears & Blackmon, *supra* note 426, at 580.

474. U.S. ENV'T PROT. AGENCY, *supra* note 248, at 7-2.

475. Mears & Blackmon, *supra* note 426, at 567.

plans developed by the State of Vermont to address both point and nonpoint sources.[476] There are also similar milestones and backstops in the event the state does not implement the plan.[477]

It will likely take many years to achieve the reductions set forth in the Chesapeake Bay plan. At present, the health of the bay appears to be slightly improving,[478] and several states have taken substantial steps to implement the TMDL and upgrade aging wastewater treatment systems.[479] Yet when it comes to curbing agricultural and storm water pollution, there has been much less progress.[480] Many have cited the lack of BMP performance measures, overstated pollution reductions based on assumptions about the effectiveness of runoff control actions rather than empirical monitoring data, and inadequate enforcement among the reasons why nutrient pollution from agricultural operations has barely declined.[481] Still, some researchers and activists see increased funding for BMP cost-share programs and pilot projects as encouraging signs that positive steps are being taken toward reducing sediment and nutrient runoff.[482]

Despite these challenges, the Chesapeake Bay TMDL offers a useful blueprint for how Florida can provide the transparency and accountability necessary for achieving the State's TMDL targets. While the Florida Legislature took significant steps in 2015 when it established several requirements for the State's BMAPs that mirror some of the requirements set forth in the Chesapeake Bay TMDL, the statute provides few consequences when milestones are not being met and pollution reduction measures are not being implemented.[483]

State leaders serious about addressing nutrient pollution should bring much more transparency and accountability to their TMDLs. In the case of Florida, they should address the Lake Okeechobee, Caloosahatchee, and St. Lucie River TMDLs, and pick up where they left off in 2016 and amend state law to require more effective and enforceable TMDL implementation mechanisms.[484] One of these mechanisms should be the

476. *Id.* at 585.

477. *Id.* at 567.

478. *See* Stephanie Lai, *The Chesapeake Bay's Water Quality Is Inching in the Right Direction, Scientists Say*, WASH. POST (June 22, 2021, 3:51 PM), https://www.washingtonpost.com/local/maryland-news/chesapeake-bay-report-card-2021/2021/06/22/c7ca8122-d34f-11eb-ae54-515e2f63d37d_story.html [https://perma.cc/93ZY-XWFA] ("Several key health indexes relating to the health of the Chesapeake Bay improved slightly from the previous year.").

479. John Carey, *The Complex Case of Chesapeake Bay Restoration*, 118 PNAS 2–3 (2021).

480. *Id.* at 4.

481. *Id.* at 4–5.

482. *Id.* at 5.

483. MacLaughlin, *supra* note 309, at 52.

484. In arguing that implementation plans are the most important (and most controversial) part of the entire TMDL program, Professor Houck contends that it is the absence of effective and

requirement that BMAPs contain "reasonable assurances" that the state is able to sufficiently reduce nutrient pollution.

Section 303(d) of the CWA requires a TMDL be "established at a level necessary to implement the applicable water quality standards."[485] Although not required under the CWA, the EPA has long maintained that where waters are impaired by both point and nonpoint sources, states should provide "reasonable assurances" that the load allocations established by TMDLs will be achieved.[486] "Reasonable assurances" are a hallmark of the Chesapeake Bay and Lake Champlain TMDLs.[487] As the EPA explained in the Chesapeake Bay TMDL, "determinations of reasonable assurance" that load allocations will be achieved "could include whether practices capable of reducing the specified pollutant load (1) exist; (2) are technically feasible at a level required to meet allocations; and (3) have a high likelihood of implementation."[488]

Consistent with the EPA policy, Florida's TMDLs should also provide "reasonable assurances" that the load allocations will be achieved, even where a watershed is wholly impaired by nonpoint sources. This begins with the state legislature amending the Florida statute to *require* BMAPs for all impaired waters that have TMDLs.[489] BMAPs play an integral role in implementing TMDLs, and they must include the specific strategies and backstops necessary to achieve water pollution reduction targets. There must also be mechanisms in place for the public to track the state's progress and hold decisionmakers accountable when waters remain impaired. The following subsections are a series of recommendations for legislative and regulatory steps the state legislature and FDEP should take, respectively, to create "reasonable assurances" and bring desperately needed transparency and accountability to the state's TMDL and BMAP programs.

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enforceable implementation mechanisms and the consequent absence of implementation that led to the underperformance of all previous water quality programs. *See* Houck, *supra* note 33, at 10428.

485. 33 U.S.C. § 1313(d)(1)(A) (1972).

486. *See* EPA, GUIDELINES FOR REVIEWING TMDLS UNDER EXISTING REGULATION ISSUED IN 1992 (2002), https://www.epa.gov/sites/default/files/2015-10/documents/2002_06_04_tmdl_guidance_final52002.pdf [https://perma.cc/Z3PW-YUHB] (last updated Aug. 11, 2022); *see also* EPA, GUIDANCE FOR WATER-QUALITY BASED DECISIONS: THE TMDL PROCESS 1 (Apr. 1991).

487. *See, e.g.*, U.S. Env't Prot. Agency, *supra* note 248 (detailing the reasonable assurances requirement in the Chesapeake Bay TMDL).

488. *Id.*; *see* Am. Farm Bureau Fed'n. v. U.S. Env't Prot. Agency, 792 F.3d 281, 300–01 (3rd Cir. 2015) (finding that the reasonable assurances requirement in the Chesapeake Bay TMDL did not run afoul of the CWA and was a lawful exercise of EPA authority in that instance).

489. The Florida statute uses the word "may" rather than "must," indicating that BMAPs are voluntary: "In developing and implementing the total maximum daily load for a water body, the department, or the department in conjunction with a water management district, *may* develop a basin management action plan that addresses some or all of the watersheds and basins tributary to the water body." FLA. STAT. § 403.067(7)(a)(1) (2022) (emphasis added).

1. FDEP Should Explain How Load Reduction Strategies Will Address Harmful Algal Blooms

A simple step states can take in improving BMAPs is to acknowledge how nutrient pollution is a principal driver in the formation and proliferation of cyanobacteria blooms and to explain how the BMAP's load reduction strategies will reduce HABs. While FDEP cites existing numeric nutrient criteria as one reason for not adopting water quality criteria for cyanotoxins,[490] the BMAP for the Lake Okeechobee phosphorus TMDL makes no mention of cyanobacteria, cyanotoxins, or algal blooms, much less provides a strategy for combatting them.[491]

The public would be well served if FDEP explained how load allocations, BMPs, and other management strategies (when verified and properly implemented) provide a means of not only meeting the TMDLs for these waters but also reducing HABs. The discussion should also identify the other factors contributing to the proliferation of HABs and what other measures may need to be taken to restore water quality. By explaining how the reduction of nutrients will reduce the occurrence and severity of HABs, FDEP would help the public better appreciate how these regulatory tools can be utilized to improve their everyday lives—by protecting the waters they use and enjoy.[492] This in turn could lead to greater public support for the BMAP process and greater buy-in and focus on the specific steps that need to be taken to achieve the state's water quality goals.

FDEP should also provide increased transparency by acknowledging what specific steps the Agency needs to take to achieve pollution targets and reduce HABs. For instance, the Agency should recognize that more progress needs to be made in verifying and enforcing BMPs. The public could use this information to identify what steps the state is taking (and not taking) toward reducing HABs and assess the state's progress toward achieving that goal. It could also result in greater accountability if the Agency does not meet the plan's milestones and there is a need to retool the Agency's approach in future phases of implementing the BMAP.

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490. DIV. OF ENV'T ASSESSMENT & RESTORATION, *supra* note 388, at 84.

491. FLA. DEP'T OF ENV'T PROT., *supra* note 40, *passim*.

492. For example, the Chesapeake Bay TMDL discusses the relationship between nutrients and algal blooms and explains how these blooms smother aquatic life, block sunlight needed for submerged aquatic vegetation, and result in "dead zones" where fish and shellfish cannot survive. It then discusses how nutrient load reductions are aimed at ameliorating these negative water quality conditions and restoring aquatic life in the bay. *See* U.S. ENV'T PROT. AGENCY, CHESAPEAKE BAY TMDL EXECUTIVE SUMMARY ES-3 (2010), https://www.epa.gov/sites/default/files/2014-12/documents/bay_tmdl_executive_summary_final_12.29.10_final_1.pdf [https://perma.cc/U2VJ-Z5CW].

2. BMAPs Should Identify Specific Strategies for Managing Nitrogen

To further improve the Lake Okeechobee BMAP, the FDEP should develop a more targeted approach to reducing nitrogen loads to help combat HABs. Presently, there are no TMDLs for nitrogen or other nutrients in the lake, and researchers have maintained that a greater emphasis should be placed on reducing nitrogen pollution that may be further fueling HABs.[493] The Governor's Florida Blue Green Algae Task Force also recommended that total nitrogen reductions should be identified for the lake to protect the coastal estuaries.[494]

In recent years, scientists have been contributing to a growing body of research suggesting that nitrogen may play an equally prominent, if not an even greater role, in the formation and proliferation of some HABs. HABs may proliferate in response to combined phosphorus and nitrogen additions, or in some instances, only nitrogen additions.[495] *Microcystis*, for example, cannot fix atmospheric nitrogen and require combined nitrogen sources for growth.[496] Increased usage of nitrogen fertilizers, urban and agricultural nitrogen wastes, and atmospheric nitrogen deposition have increased bioavailable nitrogen in receiving waters.[497] Nitrogen and phosphorus are being delivered to Lake Okeechobee, and the loading rates are highly correlated.[498] External nitrogen input can be "a key driver" of eutrophication and *Microcystis* can dominate in areas despite phosphorus-focused controls.[499] Thus, management of phosphorus loading alone may not be enough to control the growth or toxicity of cyanobacteria such as *Microcystis*.[500]

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493. *See* GRAHAM ET AL., *supra* note 33, at 68 ("All currently developed nutrient source control programs for the Lake Okeechobee watershed primarily focus on [phosphorus] reduction, but consideration should be given to nitrogen control as well because the ratios of these nutrients can yield variable effects on eutrophication of waterbodies and are particularly important in estuaries. Loads of [nitrogen] to Lake Okeechobee measured between [2000 and 2014] ranged from 2,500 to 8,800 metric tons [nitrogen] per year."); *see also* U.S. ENV'T PROT. AGENCY, EPA-820-S-15-001, PREVENTING EUTROPHICATION: SCIENTIFIC SUPPORT FOR DUAL NUTRIENT CRITERIA 2 (Feb. 2015), https://www.epa.gov/sites/production/files/documents/nandpfactsheet.pdf [https://perma.cc/X4NL-TGFX] (recommending the development of numeric water quality criteria for both phosphorus and nitrogen to help prevent the proliferation of HABs); Goforth Presentation, *supra* note 452 (documenting nitrogen loads in Lake Okeechobee and suggesting that FDEP establish a nitrogen TMDL for the lake).

494. FLA. DEP'T OF ENV'T PROT., *supra* note 322, at 3.

495. *Id.*

496. Paerl et al., *supra* note 156.

497. Siti Jariani Mohd Jani, Composition, Sources, and Bioavailability of Nitrogen in Urban Waters 117 (2018) (Ph.D. dissertation, University of Florida) (ProQuest).

498. GRAHAM ET AL., *supra* note 33, at 63.

499. Paerl et al., *supra* note 156.

500. Christopher J. Gobler et al., *The Dual Role of Nitrogen Supply in Controlling the Growth and Toxicity of Cyanobacterial Blooms*, 54 HARMFUL ALGAE 87–97 (2016).

Increased nitrogen loading may also be contributing to the increased frequency of red tides in Florida. Researchers at the University of Miami examined data on *K. brevis* along the southwest coast of Florida from 1954 to 2002.[501] They hypothesized that greater nutrient availability in the ecosystem is most likely the cause of an increase in *K. brevis* biomass.[502] A large increase in human population and associated activities (for example, more sewage, more disturbance of terrestrial and wetland ecosystems that sequester nutrients, and more land surface runoff) in South Florida over the past fifty years is a major factor.[503]

Accordingly, after establishing a TMDL for nitrogen, FDEP should work in consultation with FDACS and the water management districts and identify monitoring opportunities that would help zero in on the specific sources of nitrogen pollution in the system (as well as any hotspots). FDEP should then reassess the effectiveness of the mitigation strategies it relies on in the BMAP to address nutrient pollution and identify what new approaches may be needed to specifically reduce nitrogen loading. This would help bring a more targeted approach to managing both phosphorus and nitrogen throughout the system.

3. FDEP Should Establish Allocations Between or Among Nonpoint Source Categories Within Pollution Hotspots

Under Florida law, FDEP must establish:

> [R]easonable and equitable allocations of the total maximum daily load *between or among* point and nonpoint sources that will alone, or in conjunction with other management and restoration activities, provide for the attainment of the pollutant reductions . . . to achieve water quality standards for the pollutant causing impairment . . . . Allocations may also be made to individual basins or sources or as a whole to all basins and sources or categories of sources of inflow to the water body or water body segments.[504]

TMDLs may begin with an initial allocation of allowable pollutant loads among point and nonpoint sources, but in such cases, a detailed allocation to specific point sources and specific categories of nonpoint sources shall be established in the BMAP for that TMDL.[505]

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501. Larry E. Brand & Angela Compton, *Long-Term Increase in Karenia Brevis Abundance Along the Southwest Florida Coast*, 6 HARMFUL ALGAE 232–52 (2007).

502. *Id.*

503. *Id.*

504. FLA. STAT. § 403.067(6)(b) (2022) (emphasis added).

505. *Id.*; Sierra Club v. Dep't of Env't Prot., No. 1D21-1667, 2023 WL 2007945, at *2 (Fla. 1st DCA Feb. 15, 2023).

FDEP's 2020 revisions to the Lake Okeechobee TMDL include load reductions and targets for each of the nine sub-watersheds that comprise the Lake Okeechobee watershed.[506] This finer-scale approach is a substantial improvement over the 2014 BMAP, which did not include any load reductions or targets at the sub-watershed level.[507] But more needs to be done to further FDEP's statutory directive that it equitably allocate pollutant reductions between or among nonpoint sources[508] and achieve the milestones set forth in the BMAP. Setting pollution reduction targets in the sub-watersheds will likely not be granular enough to focus on the specific areas where phosphorus loading is at the highest levels in the watershed.

As researchers at the Everglades Foundation and University of Florida detail in a 2019 study, there are several phosphorus-loading "hotspot clusters" in the northern Lake Okeechobee basins, which is consistent with several prior studies of the region.[509] The land uses within these clusters consist primarily of dairies—both active and abandoned—dairy boundary pastures, intensive pastures, spray fields, sod farms, and tree nurseries.[510] Comparatively, other agricultural uses such as unimproved pasture, citrus groves, pine plantations, and row crops appear to have a much lower average annual total phosphorus load in the Lake Okeechobee watershed.[511] Despite the presence of these hotspots and differences in phosphorus loading among these operations, the Lake Okeechobee BMAP fails to identify and allocate pollution loads among the many categories of nonpoint source pollution. Rather, the BMAP lumps all nonpoint source pollution categories and land uses together across the nine sub-watersheds.[512]

The Lake Okeechobee BMAP should be revised to take an even finer-scale approach to tackling phosphorus pollution. This should consist of a phased approach that starts with allocating loadings to nonpoint source categories within these nine sub-watersheds, which would enable FDEP to zero in on the phosphorus hotspots and prioritize pollution reduction measures in these areas. By allocating load reductions among these categories, FDEP would be able to take a harder look at the root causes for these hotspots and identify pollution reduction measures that are more

506. FLA. DEP'T OF ENV'T PROT., *supra* note 40, at 15, 23.

507. FLA. DEP'T OF ENV'T PROT., *supra* note 308, at xiv–xv.

508. FLA. STAT. § 403.067(6)(b) (2022).

509. Khare et al., *supra* note 302, at 6.

510. *Id.* at 330 tbl.1.

511. *Id.*

512. FLA. DEP'T OF ENV'T PROT., *supra* note 40, at 20. This approach appears to be common to many BMAPs throughout the state, despite the statutory language calling for more specificity and detail. Douglas MacLaughlin points to the TMDL established for Lake Apopka, which only established an initial allocation between a single point source and all nonpoint sources adding phosphorus to the lake. MacLaughlin, *supra* note 309.

specifically tailored to these operations and to reducing these hotspots. By focusing on hotspots, the challenges of managing diffuse sources of pollution across a large landscape also appear surmountable. If FDEP later determines that a finer-scale approach is necessary in future phases to zero in on the most significant sources of pollution, it could allocate loadings to nonpoint source categories within each of the sixty-four basins that make up the Lake Okeechobee watershed.[513]

The state legislature should also consider amending the statute to provide FDEP with the express authority to allocate loadings to individual nonpoint sources in future phases of the Lake Okeechobee BMAP if allocating loadings to nonpoint source categories is not achieving pollution reduction milestones and an even more granular approach is necessary to address the pollution resulting from specific operations.[514]

4. FDEP Should Impose Backstops When Milestones are not Met

There must also be greater consequences if the state agencies responsible for administering BMAPs fail to make meaningful progress toward achieving the TMDL. While Florida law identifies five-year, ten-year, and fifteen-year milestones, and establishes reporting requirements, it does not impose any backstops if the state falls short of meeting these milestones.[515] In fact, if achieving the TMDL within twenty years is not practicable, FDEP is only required to explain the constraints that prevent achievement of the TMDL within twenty years and provide an estimate of the time needed to achieve the TMDL.[516] It can then set additional five-year milestones, as necessary.[517] The statute only contemplates FDEP revising the plan "as appropriate" and "in cooperation with basin stakeholders."[518] Without backstops or other contingencies in place, the statute incentivizes kicking the proverbial can down the road, with the goal posts being moved every couple of decades. This is becoming more of a realization after data from May 2013 to April 2017 revealed that the average annual phosphorus load remains nearly four times the target set forth in the TMDL, with basins on the northern side of Lake Okeechobee consistently contributing over ninety percent of the total phosphorus load from non-atmospheric sources.[519]

513. *See* FLA. DEP'T OF ENV'T PROT., *supra* note 40, at 23 (depicting the sixty-four basins).

514. The statute currently provides FDEP with authority to make allocations for "categories" of nonpoint sources in TMDLs and BMAPs. *See* FLA. STAT. §§ 403.067(6)(b), (7)(a)2 (2022).

515. *Id.* § 403.0675(1).

516. *Id.*

517. *Id.* § 403.067(7)(a)6.

518. *Id.*

519. Khare et al., *supra* note 302, at 2.

Therefore, the Florida statute should be amended to provide FDEP with opportunities to establish and implement specific regulatory backstops every five years if the state is falling short of meeting its milestones. These backstops may include: ratcheting up maximum allocation loads for sub-watersheds or the individual basins that are determined to be in identifiable hotspots for pollution, as well as specific categories of nonpoint sources within these hotspots; investing more in advanced BMP technologies to address the most significant sources of new pollution; imposing more rigorous recordkeeping requirements for agricultural producers; and conducting more frequent site visits to ensure landowners (particularly those within pollution hotspots) are properly implementing BMPs.

5. There Should be Better Communication and Collaboration Among State and Local Agencies to Address Non-Agricultural Pollution

Attainment of the Lake Okeechobee TMDL will largely depend on the state's ability to effectively manage agricultural nonpoint sources, as they are the predominant source of pollution entering the lake.[520] Local governments, however, also have an opportunity to assist the state in achieving the TMDL by addressing non-agricultural runoff and flows that are contributing sources of pollution including leaking septic tanks, sanitary sewer overflows, and storm water treatment systems.[521]

There are additional steps the state can take to address these additional pollution sources through the BMAP process by requiring additional information sharing within and between state and local governments. For urban storm water systems, FDEP should collect annual municipal

520. FLA. DEP'T OF ENV'T PROT., *supra* note 40, at 39.

521. In some parts of the Greater Everglades ecosystem, such as the IRL, leaking septic tanks may be a leading driver of nutrient pollution. *See* L.W. Herren et al., *Septic Systems Drive Nutrient Enrichment of Groundwaters and Eutrophication in the Urbanized Indian River Lagoon, Florida*, 172 MARINE POLLUTION BULL. 1, 12 (2021) ("This study illustrates that implementing more advanced wastewater treatment in key locations may allow for decreased nutrient loading and improved estuarine water quality and seagrass health in the IRL and other locations with similar conditions."); Peter J. Barile, *Widespread Sewage Pollution of the Indian River Lagoon System, Florida (USA) Resolved by Spatial Analyses of Macroalgal Biogeochemistry*, 128 MARINE POLLUTION BULL. 557, 571 (2018) ("Sewage nitrogen has been identified as a significant contributor to eutrophication in many coastal ecosystems throughout Florida, including the Indian River Lagoon."); Brian E. Lapointe et al., *Septic Systems Contribute to Nutrient Pollution and Harmful Algal Blooms in the St. Lucie Estuary, Southeast Florida, USA*, 70 HARMFUL ALGAE 1, 4 (2017) ("One emerging issue is the potential nutrient loading associated with the application of biosolids."); Brian E. Lapointe et al., *Evidence of Sewage-Driven Eutrophication and Harmful Algal Blooms in Florida's Indian River Lagoon*, 43 HARMFUL ALGAE 82, 84 (2015) ("Despite the elimination of point-source sewage inputs to the IRL through the IRL Act, non-point source sewage pollution from septic tanks . . . has continued to expand and remains a serious environmental and human health concern.").

separate storm sewer system (MS4)[522] permitting data within a BMAP area to determine expected loads, as well as net changes in loading between each implementation milestone. This would enable FDEP to evaluate the progress of MS4 permits in achieving pollution reductions in BMAP areas and, if necessary, to reexamine their adequacy in achieving waste load allocations, especially in identified hotspots.[523]

Similarly, for sanitary sewer overflows, FDEP should include data from incident reports along with loading estimates to determine where these incidents are occurring within the BMAP area every year, and to what extent they are contributing to nutrient-loading in the watershed.[524] In addition, FDEP could collect information regarding the properties that have switched from septic to sewer or have upgraded existing septic systems within a BMAP area, and the expected nutrient pollution reductions from local governments. This would help the state evaluate the effectiveness of these programs in helping meet nutrient reduction goals.

6. There Should be an Independent Advisory Committee to Perform Yearly Reviews and Incorporate New Information in Future Decision-Making

In addition to establishing more finely scaled load reductions and targets within the nine sub-watersheds, the BMAP's phased implementation approach needs to provide greater accountability and transparency. Much like the five-year milestones, the reporting

522. MS4s are stormwater systems that are not a combined sewer or part of a sewage treatment plant or publicly owned treatment works. These publicly owned systems collect or convey stormwater that discharge to waters of the United States. NPDES permits are required to prevent harmful pollutants from being washed or dumped into MS4s. Permit holders must develop stormwater management programs that describe stormwater control practices that will be implemented to minimize the discharge of pollutants. *See Stormwater Discharges from Municipal Sources*, U.S. ENV'T PROT. AGENCY (Dec. 2, 2022), https://www.epa.gov/npdes/stormwater-discharges-municipal-sources [https://perma.cc/DEJ6-ULXL].

523. Annual reporting is required under MS4 permitting rules, and it appears the FDEP could compile this information for use in BMAPs. *See* FLA. ADMIN. CODE ANN. r. 62-624.600 (2022) (setting forth annual reporting requirements for individual MS4 permits); *see also 9/24/19 Department of Environmental Protection Blue-Green Algae Task Force Part 2*, FLA. CHANNEL (Sept. 24, 2019), https://thefloridachannel.org/videos/9-24-19-Department-of-environmental-protection-blue-green-algae-task-force-part-2 [https://perma.cc/X2YQ-U65L].

524. For example, it appears there was significant loading in the Kissimmee River Basin as a result of infiltration and inflow (I&I) incidents during Hurricane Irma in 2016, which preceded massive algal blooms in the lake and estuaries. *See 8/1/19 Department of Environmental Protection Blue-Green Algae Task Force Part 2*, FLA. CHANNEL (Aug. 1, 2019), https://thefloridachannel.org/videos/8-1-19-Department-of-environmental-protection-blue-green-algae-task-force-part-2/ [https://perma.cc/8LM8-M8GC].

requirements established in 2016[525] are a significant improvement to the TMDL process. While BMAP revision is a collaborative process involving a range of stakeholders, it typically occurs every five years as FDEP reviews the progress made toward achieving the five-year milestones set forth in the BMAP.[526] Following a 2019 Executive Order by the Governor, the Lake Okeechobee BMAP was updated in 2020 to include recommendations from the first five-year review.[527] This included updates to the modeling, sub-watershed loading targets, management actions to achieve nutrient reductions, and a revised monitoring plan to track water quality trends.[528]

However, there must be more frequent progress reports and independent assessments, given the frequency of the HABs afflicting the lake and the coastal communities and the role of nutrient pollution in the formation and proliferation of HABs.[529] HABs have occurred almost every year for the past decade, and BMAPs should be continually reviewed to ensure the most accurate, up-to-date data is being used to inform decision-making and develop management approaches to respond to these events.[530] Comparatively, the Chesapeake Bay and Lake Champlain TMDLs have two-year milestones, which require the states to meet pollutant load reductions more frequently and provide for more frequent performance reviews.[531]

To this end, the Governor should establish an advisory committee to perform a yearly review of the state's progress toward achieving the TMDL and provide specific recommendations to the legislature for improvements to the BMAP process and to FDEP for future revisions to the plan. The committee could identify future projects that are needed to address the more than sixty percent of load reductions necessary to meet the TMDL.[532] The committee would convene every year following FDEP's submittal of its statewide annual report and would consist of an independent and interdisciplinary group of water quality scientists, biologists, engineers, and experts in water law. Given the significant work that needs to be done to even meet five-year milestones, it is unlikely that shorter milestones would offer the scientific scrutiny and the

525. *See* FLA. STAT. § 403.0675 (2022) (requiring that FDEP and FDACS submit progress reports).

526. FLA. DEP'T OF ENV'T PROT., *supra* note 40, at 15.

527. *Id.*

528. *Id.*

529. *See* Goforth Presentation, *supra* note 452 (recommending annual assessments based on measured nutrient loads).

530. *Id.*

531. *Id.*

532. *See 7/1/19 Department of Environmental Protection*, *supra* note 335 (discussing the shortage of identified future projects to meet the load reduction targets in the BMAP).

opportunities for revision necessary to make substantial progress toward achieving the TMDL that an expert panel would provide.

7. There Should Be an Online Portal for the Public to Track Progress

Public transparency and accountability could be further improved by the establishment of an online platform where concerned citizens could track the progress being made toward achieving the milestones set forth in BMAPs. This should include a GIS-based mapping system depicting the various phosphorus hotspots with information about the various methods being taken to reduce pollution in the watershed. The map would identify specific BMPs, wetland restoration, dispersed water management projects, stormwater treatment areas, and other projects and include information about the projects' status, role in phosphorus reduction, and effectiveness to date. These maps could also depict the baseline identified in the 2014 BMAP and the annual load reduction progress made since then. This could be modeled after other TMDL tracking tools, such as those used for Chesapeake Bay, which include interactive maps that allow the EPA, states, and stakeholders to track progress toward implementing the bay's TMDL.[533] This information will enable the public to stay informed about the state's efforts to reduce phosphorus loading in the lake and demand greater accountability from elected officials and state agencies when milestones are not being achieved.

8. State Agencies Should Continually Adapt as Circumstances Change with Population Growth and Climate Change

Given that the Lake Okeechobee BMAP relies predominantly on the implementation of BMPs on more than 1.7 million acres of farmland in the northern Lake Okeechobee watershed to achieve load reductions to meet the TMDL in twenty years, it is imperative that the state ensure these practices really are "the best."[534]

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533. *Chesapeake Bay TMDL, Tools to Track Progress in the Chesapeake Bay Watershed*, U.S. ENV'T PROT. AGENCY (May 4, 2022), https://www.epa.gov/chesapeake-bay-tmdl/tools-track-progress-chesapeake-bay-watershed [https://perma.cc/JK4Z-ZTVZ]; *Public Reports – Compare Map*, CHESAPEAKE ASSESSMENT SCENARIO TOOL, https://cast.chesapeakebay.net/PublicReports/CompareMap [https://perma.cc/JWE9-CZ27] (last visited Feb. 25, 2023). The Chesapeake Bay Program had a Chesapeake Bay TMDL Tracking and Accounting System (BayTAS), but it was retired. *See Phase 5.3.2 Watershed Model*, CHESAPEAKE ASSESSMENT SCENARIO TOOL, https://cast.chesapeakebay.net/Documentation/Phase5/ [https://perma.cc/T7Y8-VYEV] (last visited Feb. 25, 2023).

534. S. FLA. WATER MGMT. DIST. ET AL., *supra* note 305, at 13–14 (2011). *See generally* Joyce Zhang et al., *Lake Okeechobee Watershed Protection Plan Annual Progress Report*, *in* 2022 SOUTH FLORIDA ENVIRONMENTAL REPORT – VOLUME I 8B-3 (2022) (noting that SFWMD gave its approval to expand the existing upstream and in-lake monitoring program for the Lake Okeechobee watershed).

As the state continues to experience significant growth and changing land use patterns[535]—which in turn could place an even greater demand on agricultural production, water use, and natural resources—additional conservation measures and new technologies may be required to achieve phosphorus targets.[536]

Moreover, nonpoint source pollution is predicted to increase due to increased precipitation and higher-intensity rainfall events driven by climate change.[537] Seasonal changes could further "trigger changes in cropping patterns, agricultural practices, and future land uses," thus further exacerbating nutrient pollution.[538]

To this end, BMAPs should be required to contain an adaptive management component that is specifically focused on how population growth and the resulting changes in land use—as well as climate change stressors—are affecting nonpoint source pollution, and in turn, impacting nutrient loading in the lake. Through a feedback loop, data would be used to respond to growth patterns, changing agricultural practices, and climate change-driven impacts, and provide FDEP with the information to make changes to pollution reduction measures on an as-needed basis.[539]

D. *BMAPs, Consumptive Use Permits, and Water Supply Plans Should Consider the Role Water Allocations Play in the Formation and Proliferation of HABs*

Under Florida law, water is a public resource[540] and almost all uses of water require a permit.[541] Florida's Water Resources Act authorizes water management districts to issue permits for consumptive uses, typically for twenty years.[542] Flood control and water supply demands have led water managers in the state to alter natural surface water levels and flows to

535. *See* Michael Volk et al., *Florida Land Use and Land Cover Change in the Past 100 Years*, *in* FLORIDA'S CLIMATE: CHANGES, VARIATIONS, & IMPACTS 70 (2017), https://diginole.lib.fsu.edu/islandora/object/fsu:539153/datastream/PDF/view [https://perma.cc/DZ37-PF6R] ("[T]he pre-1900 landscape of Florida has been significantly altered by agriculture and urbanization.").

536. Khare et al., *supra* note 302.

537. *Id.*

538. *Id.*

539. The GAO discusses several recommendations by the National Research Council (NRC) in 2001 for improving TMDLs. The NRC recommended a plan to monitor a TMDL's effect on water quality, including monitoring biological parameters, and a description of an adaptive approach to implementing the TMDL, whereby monitoring data will be used to periodically assess progress toward attaining water quality standards and adjusting the TMDL as necessary. *See* U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 30, at 38–39 (2013).

540. FLA. STAT. § 373.016(4)(a) (2022).

541. Exceptions include domestic consumption of water by individual users and water used strictly for firefighting. *See* FLA. STAT. § 373.219 (2022); FLA. ADMIN. CODE ANN. r. 40E-2.051 (2022).

542. FLA. STAT. § 373.219(1) (2022).

manage water for agricultural, industrial, and municipal users.[543] Yet, in addition to nutrients and temperature, hydrological factors such as water flows, levels, and velocities can also influence the formation and proliferation of algal blooms.[544]

Lake Okeechobee, where water is stored during wet periods for future consumptive use in the dry season, is a striking example of how resource managers have altered the natural system to provide for water supply and flood protection.[545] These water management decisions have a profound impact on the natural system. For example, when lake stages are 15.5 feet or higher, phosphorus and sediment-rich waters from the center of the lake mix with waters in the nearshore region, harming submerged plants and worsening algal blooms.[546] When water levels are too high and pose a risk of flooding communities to the south of the lake, the Corps of Engineers discharges this nutrient-laden water to the coastal estuaries, leading to algal blooms and fish kills in the rivers and estuaries.[547] Conversely, when lake stages are low, less water flows to the Caloosahatchee, causing the river to become stagnant and hypersaline, which then results in low oxygen levels and the loss of submerged aquatic vegetation.[548]

Reducing nutrient loading and restoring hydrologic regimes are the most successful strategies to mitigate HABs.[549] BMAPs, consumptive use permits, and regional water supply plans, however, have all failed to address the extent to which water allocations—which can greatly influence water flows and levels in lakes, canals, and other waterbodies––have contributed to the formation and proliferation of HABs.[550]

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543. *Water Management Districts*, FLA. DEP'T OF ENV'T PROT. (May 16, 2019, 2:18 PM), https://floridadep.gov/water-policy/water-policy/content/water-management-districts [https://perma.cc/G39P-UDCU]; *Minimum Flows and Minimum Water Levels and Reservations*, FLA. DEP'T OF ENV'T PROT. (Dec. 6, 2022, 3:08 PM), https://floridadep.gov/water-policy/water-policy/content/minimum-flows-and-minimum-water-levels-and-reservations [https://perma.cc/RS6D-5N4Q].

544. *See* UNIV. OF FLA. LEVIN COLL. OF L. CONSERVATION CLINIC, SPRING WATER VELOCITY: PROTECTING WATER QUALITY WITH WATER QUANTITY REGULATION *passim* (2018) (citing several studies finding that water quantity indicators can be as relevant to macroalgal proliferation in Florida spring-fed rivers as water quality indicators); *see also* CTR. FOR EARTH & ENV'T SCI., WHAT CAUSES ALGAL BLOOMS? 1 (2018), http://www.lakeleann.org/uploads/3/9/0/8/39088599/understanding_algae.pdf [https://perma.cc/SX94-UG2H] (explaining that algal blooms likely result from factors such as available nutrients, temperature, sunlight, ecosystem disturbance, hydrology, and water chemistry).

545. U.S. ARMY CORPS OF ENG'RS, *supra* note 144, at i.

546. GRAHAM ET AL., *supra* note 33, at 115.

547. *Id.*; U.S. ARMY CORPS OF ENG'RS, *supra* note 144, at 138.

548. NAT'L ACADEMIES OF SCIS., ENG'G, & MED., *supra* note 55, at 162.

549. *Id.* at 176.

550. *Id.*

In establishing the BMAP program, the state legislature envisioned a cooperative interagency approach to protecting water quality and reducing the spread of nutrients in state waters: BMAPs "must integrate the appropriate management strategies available to the state through existing water quality protection programs to achieve the total maximum daily loads."[551] As the lead contributor in this effort, the legislature must coordinate the implementation of TMDLs through existing water quality protection programs, which include permitting programs as well as other water quality management and restoration activities.[552]

Recent BMAPs have started to recognize the role that consumptive use permitting and other regulatory programs play in protecting water resources and reducing the impact of new development and other land uses changes as they occur.[553] However, these plans do not consider the role that consumptive uses (present and future) play in the formation and proliferation of HABs. While efforts to construct large-scale water storage and treatment projects are underway to help move water out of the lake south during the rainy season,[554] more can be done under Florida's regulatory programs to address these issues. Specifically, there needs to be a more integrated approach that bridges water use permitting and planning with BMAP pollution reduction programs. This could be achieved by FDEP adding a component to the BMAPs that specifically addresses any relationship between water levels and flows, nutrients, and HABs and how water supply allocations are influencing this relationship.

BMAPs would be a more effective tool to address the effects of water supply demands if districts more fully implemented the requirements for consumptive use permits (CUPs). State law requires districts to apply a three-prong test to determine whether a CUP should be issued.[555] This test requires: (1) that the use is a reasonable-beneficial use; (2) that it will not interfere with any existing legal use of water; and (3) that the use is consistent with the public interest.[556] The Florida statute gives the districts

551. FLA. STAT. § 403.067(7)(a) (2022).

552. *Id.* § 403.067(7)(b).

553. FLA. DEP'T OF ENV'T PROT., *supra* note 40, at 159; FLA. DEP'T OF ENV'T PROT., SILVER SPRINGS AND UPPER SILVER RIVER AND RAINBOW SPRING GROUP AND RAINBOW RIVER BASIN MANAGEMENT ACTION PLAN 73 (2018), https://floridadep.gov/sites/default/files/Silver%20Rainbow%20Final%202018.pdf [https://perma.cc/BGJ7-R74C]; ST. LUCIE 2020 BMAP, *supra* note 329, at 158.

554. *Progress Continues on the Everglades Agricultural Area Reservoir Project*, S. FLA. WATER MGMT. DIST., https://www.sfwmd.gov/our-work/cerp-project-planning/eaa-reservoir [https://perma.cc/Z9CC-W2WX] (last visited Feb. 26, 2023).

555. Sw. Fla. Water Mgmt. Dist. v. Charlotte Cnty., 774 So. 2d 903, 908 (Fla. 2d DCA 2001).

556. *Id.*; FLA. STAT. § 373.223(1)(a)–(c) (2022). "Public interest" is not defined in the statute. *See* Christine A. Klein et al., *Modernizing Water Law: The Example of Florida*, 61 FLA. L. REV. 403, 432–41 (2009) (examining the permitting challenges resulting from not having a clearly defined "public interest" test and identifying several possible approaches to defining the public interest).

discretion in requiring information from permit applicants about the nature of the proposed withdrawal.[557] The SFWMD explains in its handbook for permit applicants that "[r]easonable assurances that the proposed water use from both an individual and cumulative basis meets this three-pronged test are provided, in part, by the applicant's compliance with the Conditions for Issuance," set forth in Florida Administrative Code Rule 40E-2.301.[558] This rule requires applicants to provide reasonable assurances that consumptive uses will not, among other things, cause harm to wetlands or other surface waters and not cause pollution of the water resource.[559] The districts could further protect the public interest by requiring applicants for CUPs to analyze the direct, indirect, and cumulative impacts of water supply allocations on the formation and proliferation of blooms. While existing permittees maintain the right to use the amount of water authorized by their permits,[560] this is not an unfettered right guaranteed in perpetuity,[561] and requiring this additional analysis for new permits and permit renewals would help guide future permitting decisions as demands on surface waters continue to increase in the future, particularly due to saltwater intrusion because of climate change.[562] This approach would implement the policy set forth in Section 373.016(2), Florida Statutes (2022), which requires FDEP and the governing boards of the districts to "take into account cumulative impacts on water resources and manage those resources in a manner to ensure their sustainability."

More broadly, regional water supply plans could help further illuminate the connections between water use and HABs by assessing the water quality impacts consumptive uses are having within watersheds across a twenty-year planning horizon. Florida Statutes direct the governing board of each district to conduct water supply planning for a specific region "where it determines that existing sources of water are not

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557. *See* FLA. STAT. § 373.229(1)(i) (2022) (indicating that all permit applications must include any information deemed necessary by the governing board or FDEP).

558. S. FLA. WATER MGMT. DIST., APPLICANT'S HANDBOOK FOR WATER USE PERMIT APPLICATIONS WITHIN THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT 50 (2022). The handbook is incorporated by reference in Florida Administrative Code Rule 40E-2.091.

559. FLA. ADMIN. CODE ANN. r. 40E-2.301 (2022).

560. FLA. STAT. § 373.223 (2022); GRAHAM ET AL., *supra* note 33, at 20–21. In addition, the savings clause of the Water Resources Development Act of 2000 provides that the Corps and the SFWMD cannot eliminate or transfer existing legal sources of water in carrying out projects under the Comprehensive Everglades Restoration Plan. *See* Water Resources Development Act of 2000, Pub. L. No. 106-541, § 601(h)(5), 114 Stat. 2572, 2690 (2000).

561. *See* FLA. STAT. §§ 373.236, .243 (2022) (establishing the duration of permits as well as granting the districts the authority to require compliance reports and authorizing the revocation of permits, respectively).

562. *See* GRAHAM ET AL., *supra* note 307, at 100 ("The dependency on Lake Okeechobee for water supply during the dry season and droughts could increase as a consequence of sea level rise.").

adequate to supply water for all existing and future reasonable-beneficial uses and to sustain the water resources and related natural systems for the planning period."[563] Currently, districts do not consider how consumptive uses may influence the development of HABs, or how water being used for consumptive uses is contributing to HABs as a result of agricultural and urban runoff during high rainfall events.[564] There is also no analysis of how land acquisition and water conservation could otherwise help meet water supply needs for the natural system and provide additional protections against HABs.[565] The districts could evaluate this information to determine whether water sources are sufficient to meet supply needs and sustain natural systems, including the water quality of these systems. Further, the legislature could make it even clearer that districts must consider these impacts and possible mitigation measures in their water supply plans. This would further advance the collaborative framework established under Chapter 403 of the Florida Statutes to achieve the state's water quality goals.[566]

CONCLUSION

Many of Florida's lakes, rivers, and estuaries, like others in the nation, are facing ecological collapse due to HABs that kill wildlife, harm people and their pets, and threaten the way of life of so many coastal communities. The Fourth District Court of Appeal of Florida remarked that "[t]he Florida Legislature has taken due care to protect our water because it is among our most basic resources" and that "Florida's policy to protect and conserve our water is a matter of great public importance."[567] Governor DeSantis echoed these sentiments in Executive Order 19-12.[568]

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563. FLA. STAT. § 373.709 (2022).

564. S. FLA. WATER MGMT. DIST., UPPER EAST COAST WATER SUPPLY PLAN UPDATE *passim* (2021), https://www.sfwmd.gov/sites/default/files/2021_UEC_Plan_Chapters-final.pdf [https://perma.cc/7PYV-39NF]; CENT. FLA. WATER INITIATIVE, REGIONAL WATER SUPPLY PLAN *passim* (2020), https://cfwiwater.com/pdfs/CFWI_2020RWSP_FINAL_PlanDocRpt_12-10-2020.pdf [https://perma.cc/9P4F-8NYU]; S. FLA. WATER MGMT. DIST., LOWER KISSIMMEE BASIN WATER SUPPLY PLAN UPDATE *passim* (2019), https://www.sfwmd.gov/sites/default/files/2019_LKB_PlanAppendices_Final.pdf [https://perma.cc/Y88V-XF7V]; S. FLA. WATER MGMT. DIST., LOWER EAST COAST WATER SUPPLY PLAN UPDATE *passim* (2018), https://www.sfwmd.gov/sites/default/files/documents/2018_lec_plan_planning_doc.pdf [https://perma.cc/WSG2-8Q7M]; S. FLA. WATER MGMT. DIST., LOWER WEST COAST WATER SUPPLY PLAN UPDATE *passim* (2022), https://www.sfwmd.gov/sites/default/files/2022_LWC_Plan_Chapters_and_Appendices.pdf [https://perma.cc/NPS4-76HM].

565. *See supra* note 564.

566. *See* FLA. STAT. § 403.075 (2022) (directing government agencies to coordinate permitting and planning activities through an ecosystem management-based approach).

567. City of W. Palm Beach v. Palm Beach Cnty., 253 So. 3d 623, 626, 628 (Fla. 4th DCA 2018).

568. Fla. Exec. Order No. 19-12, *supra* note 315.

Yet existing water quality standards, nonpoint source pollution controls, TMDLs, and public health guidelines have not limited the amount of harmful cyanotoxins that can occur in Florida's waters without causing ecological damage, killing wildlife, and threatening human health. Recommendations by the state's Blue-Green Algae Task Force have largely gone unheeded, and resources have mostly been allocated toward redirecting water flows and addressing pollution sources that are dwarfed by the agricultural runoff that continues to feed HABs.

Florida and other states should take bold action and make legislative changes to effectively manage nonpoint source pollution, plan for the compounding effects of climate change and sea level rise, and restore thousands of imperiled waters. American waters, families, communities, and local economies have suffered far too long from the devastating impacts of algal blooms.

HIDDEN IN PLAIN SIGHT: TWO MODELS OF MEDICARE PRIVATIZATION

Hannah Ruth Leibson[*]

Abstract

Medicare and private insurance are often cast as diametrically opposed forces. This framing is not only inaccurate, but it obscures the dynamic relationship that has existed between these entities for several decades. Private insurers have been playing an active role in Medicare delivery since its passage in 1965, and their role has expanded over time.

This Article seeks to illuminate the way privatization has impacted Medicare and what current privatization policy choices mean for its future. This Article draws from the copious literature on government administration and privatization to explain two key models of privatization within the Medicare program. Highlighting the way that privatization has impacted both forms of delivery will allow for more constructive conversations about striking the right role for private insurance in the future of American health care.

The main argument of this Article unfolds in three parts. First, Part I begins by arguing that privatization should be understood as a spectrum of various models, rather than a finite, static instrument. This section argues that models of privatization that delegate high degrees of control to the hands of private insurers risk reduced public accountability through misaligned incentives and lower levels of transparency. Part II illuminates the two distinct models of privatization in Medicare and how each model responds to measures of public accountability. This analysis draws attention to the weaknesses of each model resulting from program design and highlights how Medicare Advantage—the more privatized model—has proven to be the most vulnerable to fraud and abuse due to a greater degree of misaligned incentives and more limited transparency.

Finally, Part III seeks to fill a major gap in existing scholarship by offering recommendations for improving the privatized aspects of Medicare. Much attention has been paid to improving Medicare Advantage, but little has focused on the program's older and more time-tested model. Stabilizing the role of private insurers in this program is a more responsible policy approach than continuing to tolerate the accountability challenges posed by Medicare Advantage.

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INTRODUCTION

Medicare is often held up as the quintessential public program. Its passage in 1965 was heralded as ushering in a new era in American health care. Today, it continues to enjoy massive popularity, delivering health benefits in a social insurance model to over 37.9 million people over sixty-five.[1] Unsurprisingly, seniors are more satisfied with their health care coverage than any other group.[2] Because of this programmatic success, many scholars and policymakers have advocated for expansion.

"Medicare for All," once a distant goal, has become a real platform for many leaders in Congress.[3] And yet, opponents and skeptics abound.

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1. Medicare provides federal health insurance to beneficiaries over the age of sixty-five, regardless of income, medical history, or health status, and individuals under sixty-five with a long-term disability. *See* Meredith Fried et al., *A Dozen Facts About Medicare Advantage in 2020*, KAISER HEALTH NEWS (Jan. 13, 2021), https://www.kff.org/medicare/issue-brief/a-dozen-facts-about-medicare-advantage-in-2020/ [https://perma.cc/J8NV-PETF].

2. Nancy Ochieng et al., *Medicare-Covered Adults Are Satisfied with Their Coverage, Have Similar Access to Care as Privately-Insured Adults Ages 50 to 64, and Fewer Report Cost-Related Problems*, KAISER HEALTH NEWS (May 17, 2021), https://www.kff.org/report-section/medicare-covered-older-adults-are-satisfied-with-their-coverage-have-similar-access-to-care-as-privately-insured-adults-ages-50-to-64-issue-brief/ [https://perma.cc/M9QT-57CD].

3. Robert Draper, *How "Medicare for All" Went Mainstream*, N.Y. TIMES (Nov. 1, 2019), https://www.nytimes.com/2019/08/27/magazine/medicare-for-all-democrats.html [https://perma.cc/8LBS-WVXV].

Fearing disruption on a massive scale, some claim that "Medicare for All would abolish private insurance."[4] This understanding has proliferated across the public sphere.

However, this fear is misguided. Some individuals are perhaps unaware of the scope of private insurers' involvement in Medicare and misunderstand, or have never questioned, their role. Private insurers have played an active role in Medicare delivery since its passage in 1965, and the importance of private insurance has only grown over time.[5]

This Article seeks to illuminate the way privatization has impacted Medicare. This Article explains the two key models of privatization within the Medicare program. As this Article argues, one model strikes an appropriate level of privatization. The other has proved vulnerable to fraud and abuse due to misaligned incentives and limited transparency. It has exposed the dangers of allowing private insurers almost free reign over an integral public benefit. But importantly, neither, if implemented universally, would abolish private insurance.

The first model this Article explores is the public-private partnership of Original Medicare. Original Medicare, the term used to describe the program's first delivery model, is perceived by many policymakers and citizens alike as a purely publicly administered program. But since Medicare's passage, this program has operated with extensive administrative assistance from private insurers, acting as private partners behind the scenes. These private partners, at the direction of the Centers for Medicare & Medicaid Services (CMS), manage the claims process and over fifteen other major aspects of the program.[6] There have been many speedbumps since 1965, but this public-private partnership has improved in recent years through greater consolidation and better incentive alignment. Most notably, throughout this partnership, the government has remained at the wheel.

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4. Reed Abelson & Margot Sanger-Katz, *Medicare for All Would Abolish Private Insurance. 'There's No Precedent in American History.'*, N.Y. TIMES (Mar. 23, 2019), https://www.nytimes.com/2019/03/23/health/private-health-insurance-medicare-for-all-bernie-sanders.html [https://perma.cc/X4NQ-G2C4]; *see* Rachana Pradhan, *Medicare for All's Job Problem*, POLITICO (Nov. 25, 2019), https://www.politico.com/news/agenda/2019/11/25/medicare-for-all-jobs-067781 [https://perma.cc/F8W3-8X5M] ("If the health care system were actually restructured to eliminate private insurance, the way Medicare for All's advocates ultimately envision it, a lot of people with steady, good-paying jobs right now might find themselves out of work.").

5. *How Does Medicare and Private Insurance Work?*, MEDICARE.ORG, https://www.medicare.org/articles/how-does-medicare-and-private-insurance-work/#:~:text=Medicare%20works%20with%20private%20insurance%20carriers%20either%20by,program%20that%20was%20written%20into%20law%20in%201965 [https://perma.cc/9CLK-MJWE] (last visited Oct. 31, 2022).

6. *See infra* Part II.

In 1997, Congress approved Medicare Advantage, modeled as a form of open competition privatization, which is the second model this Article explores.[7] Enrollees who choose Medicare Advantage plans receive their benefits directly from a private insurer who offers and manages a certified Medicare plan.[8] This model was built on the premise that competition among private plans on the market would incentivize insurers to deliver the best plans at the lowest prices.[9] The government's role is sequestered to funding and oversight—with a lighter touch regarding the latter. Private insurers, on the other hand, have moved from passenger to driver.

In recent years, Medicare Advantage has skyrocketed in popularity. In 2020, over thirty-six percent of all Medicare-aged adults chose to enroll in a Medicare Advantage plan.[10] Estimates suggest that by 2030, fifty-one percent of Medicare eligible adults will choose Medicare Advantage over Original Medicare.[11] Many policymakers and scholars on both sides of the ideological spectrum support Medicare Advantage, too.[12] "Medicare Advantage For All" has even been suggested as a way to address the public failings of our health system.[13] Proponents of the program are attracted to the perceived benefits of privatization. They point to the promise of using a market-based approach to control costs, increase flexibility, and promote greater competition on value and benefits.[14] Often overlooked are the ways that the program has not been truly competitive: its administrative bulk wastes public dollars, it

7. Medicare Advantage was initially titled "Medicare+Choice." The Medicare Modernization Act of 2003 refashioned it into Medicare Advantage. This Article uses the term "Medicare Advantage" throughout for consistency and clarity. *See Health Plans – General Information*, CTRS. FOR MEDICARE & MEDICAID SERVS. (Jan. 1, 2021), https://www.cms.gov/Medicare/Health-Plans/HealthPlansGenInfo [https://perma.cc/LND6-CXL9].

8. *How Do Medicare Advantage Plans Work?*, MEDICARE.GOV, https://www.medicare.gov/types-of-medicare-health-plans/medicare-advantage-plans/how-do-medicare-advantage-plans-work [https://perma.cc/AET7-F2X2] (last visited Jan. 21, 2023).

9. Travis Broome & Farzad Mostashari, *Spurring Provider Entry into Medicare Advantage*, HEALTH AFFS. (July 6, 2017), https://www.healthaffairs.org/do/10.1377/hblog20170706.060925/full/ [https://perma.cc/L5X8-FMAX].

10. Meredith Freed, *A Dozen Facts About Medicare Advantage*, KAISER FAM. FOUND. (Jan. 13, 2020), https://www.kff.org/medicare/issue-brief/a-dozen-facts-about-medicare-advantage-in-2020/ [https://perma.cc/7L76-X59W].

11. *Id.*

12. Stuart M. Butler, *Medicare Advantage for All, Perhaps?*, 324 JAMA 1275–76 (2020); Caitlin Owens, *Medicare Advantage Isn't Just a Republican Idea Anymore*, MORNING CONSULT (Feb. 20, 2016), https://morningconsult.com/2016/02/20/medicare-advantage-isnt-a-republican-idea-anymore/ [https://perma.cc/UP97-8A23].

13. Steve Forbes, *Medicare Advantage for All Can Save Our Health System*, FORBES (June 11, 2020), https://www.forbes.com/sites/steveforbes/2020/06/11/medicare-advantage-for-all-can-save-our-health-care-system/?sh=635a1ccb4d12 [https://perma.cc/N2R6-MPGU].

14. *See* Greg Zahner et al., *Medicare Advantage for All: A Potential Path to Universal Coverage*, 327 JAMA 29, 29 (Dec. 16, 2021) (arguing that Medicare Advantage offers "several advantages" over traditional Medicare plans).

incentivizes providers to misrepresent the level of care provided to patients ("upcoding"), and its policies sometimes deny urgent care to those who need it most.[15]

If privatization is what policymakers and beneficiaries really want, they need not look further than Original Medicare. The path forward is not a choice between public or private. The future of Medicare is a choice of degree. It is a choice between two different models of privatization: a public-private partnership or the misleadingly-named open competition model.

The public interest is best served by choosing the model that promotes greater public accountability. This Article argues that the public-private partnership of Original Medicare better promotes public accountability because of its transparency and better-aligned incentives between the government and its private partners. Thus, in the years ahead, federal dollars should be spent improving the existing role for private contractors under Original Medicare, rather than trying to expand Medicare Advantage—a privatized system that has already proved vulnerable to fraud and abuse.

Government privatization usually works best when private contractors operate in bounded ways with clear rules and incentives aligned with the government's interests. Medicare has lasted over sixty years because it has imposed such restrictions on its private partners. Additionally, Medicare has reigned in agency costs effectively under this structure.[16] Medicare Advantage, however, is criticized as lacking these guardrails, and although the evidence is limited by the lack of transparency, the evidence that exists suggests that weak governmental oversight powers impair program administration and lead to detrimental effects on enrollees.[17] Without such guardrails, the program risks losing public trust and crumbling through excessive funding cuts which fail to target wasteful spending. It risks letting unaligned incentives between private insurers and the government get in the way of quality care and trust in the government.

This Article unfolds in three parts. First, Part I argues that privatization should be understood as a spectrum of various models. Models of privatization differ in their degree of public accountability. This section argues that models of privatization which delegate a high

15. *See infra* Part III.

16. Jeannie Fuglesten Biniek et al., *Higher and Faster Growing Spending Per Medicare Advantage Enrollee Adds to Medicare's Solvency and Affordability Challenges*, KAISER FAM. FOUND. (Aug. 17, 2021), https://www.kff.org/medicare/issue-brief/higher-and-faster-growing-spending-per-medicare-advantage-enrollee-adds-to-medicares-solvency-and-affordability-challenges [https://perma.cc/CQ4V-W37Q].

17. Austin Frakt, *Sicker Patients Seem at a Disadvantage with Medicare Advantage*, N.Y. TIMES (Apr. 4, 2016), https://www.nytimes.com/2016/04/05/upshot/sicker-patients-signal-a-drawback-of-medicare-advantage.html [https://perma.cc/B7YE-CUTF].

degree of control to private contractors risk reduced public accountability through misaligned incentives and lower transparency. Part II illuminates the two distinct models of privatization in Medicare and the extent to which each may be exposed to or protected from public accountability. This analysis draws attention to the weaknesses of each model and highlights how Medicare Advantage—the more privatized model—has proven more vulnerable to fraud and abuse due to a greater degree of misaligned incentives and more limited transparency. Finally, Part III seeks to fill a hole in existing scholarship by offering recommendations for improving the privatized model of Original Medicare. Many scholars have suggested ways to improve Medicare Advantage, but very few have focused on the program's older and more time-tested model, Original Medicare. Recommendations include greater coordination among private insurers to limit competition and extending contract lengths to foster innovation. These enhancements will improve program administration and allow Medicare to achieve an ideal level of private sector participation for years to come.

I. THE SPECTRUM OF PRIVATIZATION

Any productive discussion of privatization first requires defining it. Yet if you asked ten legal scholars to define privatization, it is likely that no two responses would be the same.[18] This lack of unity reveals a great deal about privatization. Namely, that the decision by a government to privatize a specific service or government program is not a binary decision. Rather, privatization exists on a spectrum.

Consider an example. Suppose a government owns a national airline and wants to privatize.[19] It has a few options. First, it could sell off the entire airline to one or more private owners.[20] This sale could include the nationalized airline's brand and could include subsidies.[21] Alternatively, the government could lease its assets, such as the planes, to private owners. The airline could continue to operate under government

18. *See* Donald F. Kettl, *Performance and Accountability: The Challenge of Government by Proxy for Public Administration*, 18 AM. REV. PUB. ADMIN. 9, 12 (1988) ("[T]he term [privatization] has been given an array of meanings, only some of which fit the logic of the privatization movement.").

19. The British government made this choice when they privatized British Airways. *See generally* Stephen Martin & David Parker, *Privatization and Economic Performance Throughout the UK Business Cycle*, 16 MANAGERIAL & DECISION ECON. 225, 225–37 (1995) (describing the privatization of British Airways and the subsequent period of immense privatization in Europe).

20. *See generally* Robert Poole & Chris Edwards, *Privatizing U.S. Airports*, 76 CATO INST. 1–7 (2016) (advocating for the privatization of the U.S. aviation industry).

21. *Id.*

ownership, but contract with private operators who provide pilots and flight attendants. There are a number of other ways this could be done.[22]

As this example highlights, privatization is not a fixed, static choice. Privatization should therefore be understood as the choice to give private contractors control and responsibility over some portion of the administration of a government service or program.[23] Just *how much* control and responsibility is delegated to a private contractor varies according to the chosen model of privatization. Each of the airline models above vary in their degree of delegation. The government may choose a more privatized model, such as when the government sells the airline altogether, or it could select a more minimal model, such as when the government contracts with an outside firm for flight staff.

The government has been trying out different models of privatization since 1789, when Congress passed a law allowing the Secretary of the Treasury to award private contracts to build and maintain lighthouses, public piers, and buoys.[24] Privatization, through many different models, has touched every sphere of government, from prison administration to garbage collection to highway construction.[25] The growing influence of different models of privatization has led some to call private contractors "the fourth branch of government."[26] Four out of every ten people working for the government are considered private contractors.[27] In fiscal

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22. *See generally* CONG. RSCH. SERV., R43545, AIRPORT PRIVATIZATION: ISSUES AND OPTIONS FOR CONGRESS 1 (2021) (describing four different levels of airport privatization and their use by U.S. airports).

23. Gillian Metzger uses this definition to define one form of privatization she identifies, but the Author believes that it can more broadly define privatization based on an understanding that what distinguishes different forms of privatization from each other is the *degree* of delegated control and responsibility. With this understanding, it can encompass all forms of privatization. *See* Gillian E. Metzger, *Privatization as Delegation*, 103 COLUM. L. REV. 1367, 1370 (2003) ("Privatization can take a variety of forms.").

24. The Lighthouse Act of 1789, ch. 9, 1 Stat. 53 (1789); *see* KEVIN R. KOSAR, CONG. RSCH. SERV., RL33777, CSR REPORT FOR CONGRESS: PRIVATIZATION AND THE FEDERAL GOVERNMENT, AN INTRODUCTION (2006) (discussing the early roots of privatization in the United States).

25. *See generally* John B. Goodman & Gary W. Loveman, *Does Privatization Serve the Public Interest?*, HARV. BUS. REV. (1991), https://hbr.org/1991/11/does-privatization-serve-the-public-interest [https://perma.cc/SW8J-Q6GS] (describing several areas of government privatization around the world).

26. Scott Shane & Rob Nixon, *U.S. Contractors Becoming a Fourth Branch of Government*, N.Y. TIMES (Feb. 4, 2007), https://www.nytimes.com/2007/02/04/world/americas/04iht-web.0204contract.4460796.html [https://perma.cc/34PB-QWVQ].

27. *See* PAUL LIGHT, THE TRUE SIZE OF THE GOVERNMENT: TRACKING WASHINGTON'S BLENDED WORKFORCE 1984–2015 3 tbl.1 (2017) (showing that the U.S. government spends more money per year paying contractors than it does compensating federal employees); *see also Contractors: How Much Are They Costing the Government?*: *Hearing Before the Ad Hoc Subcomm. on Contracting Oversight*, 112th Cong. 3 (2012) (statement of Sen. Rob Portman, Member, S. Comm. on Homeland Sec. & Gov't Affs.) (detailing that the U.S. government spends

year 2018, federal agency contracts for goods and services accounted for forty percent of the government's discretionary spending.[28]

Yet despite privatization's many models and the United States' increasing reliance on them,[29] discussions on privatization lack nuance. Privatization is assumed to be a yes or no choice by the government, rather than a choice of degree. Nonetheless, how a government program is privatized matters just as much as whether it is privatized at all. Some models reach into the "core aspects of government programs,"[30] while others have a minimal effect on the programs they touch.[31] So, what distinguishes these models from each other? The degree of public accountability they possess.

A. *Connecting Privatization to Public Accountability*

Public accountability is the means to the end of good government. It is the ultimate responsibility of a government to its people. Public accountability is high when public administration "outcomes match the policies defined by responsible public officials."[32] Public accountability is low when officials are not responsive, when the public is unable to access policy information, and when policies do not align with public values.

Public accountability ensures that elected officials promote public values such as efficiency, effectiveness, capacity, responsiveness, trust, confidence, and equity.[33] The promotion of these public values is a sign that democracy is working well. When democracy works, trust in government is high and leaders are more likely to stay in power.[34] Because of this incentive, government leaders are motivated to pursue policies which align with public values.[35]

Government transparency, a pillar of democracy, helps voters determine whether public values are being met. Transparency ensures

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about $320 billion dollars per year on service contracts, and just $200 billion per year to compensate federal employees.).

28. *Federal Government Contracting for Fiscal Year 2018*, U.S. GOV'T ACCOUNTABILITY OFF.: WATCHBLOG (May 28, 2019), https://blog.gao.gov/2019/05/28/federal-government-contracting-for-fiscal-year-2018-infographic/ [https://perma.cc/S45Y-L4A2].

29. Metzger, *supra* note 23, at 1379.

30. *Id.* at 1369.

31. *Id.* at 1371.

32. Kettl, *supra* note 18, at 9.

33. *See* DONALD F. KETTL, SHARING POWER: PUBLIC GOVERNANCE AND PRIVATE MARKETS 18–20 (1993) (discussing six public values that an effective government should strive to meet, and that privatization risks disrupting).

34. OECD, GOVERNMENT AT A GLANCE 2013 21 (2013), https://www.oecd-ilibrary.org/governance/government-at-a-glance-2013_gov_glance-2013-en [https://perma.cc/C334-TQL3].

35. *U.S. Transparency and Accountability*, COAL. FOR INTEGRITY, https://www.coalitionforintegrity.org/what-we-do/transparency-and-accountability/ [https://perma.cc/L9H8-H796] (last visited Oct. 13, 2022).

that information is available for the public.[36] This information might include data used to measure program performance against stated goals, or information used to identify signs of fraud and abuse of power.[37] Transparency is especially important in American government because of the paradoxical expectations of American citizens. Americans are increasingly distrustful of the government, but at the same time, they expect a lot from it.[38] Transparency reduces this distrust by providing tangible metrics to measure whether public values are being met, and government dollars are being well-spent.[39]

Privatization disrupts this balance. Privatization reduces public accountability through two mechanisms. First, it does so through reduced transparency.[40] The more privatized a program is, the more autonomy a private contractor has to avoid revealing the extent or cost of its work to the public. The result: the public cannot hold leaders and government agencies accountable if they do not know what valuable public goods are

36. However, the availability of information does not mean the public will utilize it. *See* Hannah Leibson & Allison K. Hoffman, *Price Transparency's Illusory Promise*, HEALTH JUST. MONITOR (July 20, 2021), http://healthjusticemonitor.org/2021/07/20/price-transparencys-illusory-promise/ [https://perma.cc/3E8T-V7QT] (discussing the limits of providing transparency in the health care field).

37. *See U.S. Transparency and Accountability*, *supra* note 35 ("Transparency is a powerful weapon against corruption. When government processes are transparent, it is difficult for corruption to thrive.").

38. *See* NPR ET AL., AMERICANS DISTRUST GOVERNMENT, BUT WANT IT TO DO MORE 1 (2000), https://www.kff.org/wp-content/uploads/2013/01/americans-trust-government-but-want-it-to-do-more.pdf [https://perma.cc/D3MH-WDME] (noting how a new survey finds that while many Americans distrust the government, they also desire greater government regulation and government involvement to solve national problems). *See generally* SUZANNE METTLER, THE GOVERNMENT-CITIZEN DISCONNECT 23 (2018) ("Over the past four decades, Americans' relationship to the federal government has evolved in a deeply paradoxical manner.").

39. *See* Martin Alessandro et al., *Transparency and Trust in Government. Evidence from a Survey Experiment*, WORLD DEV., Feb. 2021, at 2 ("Given that 'there is an assumption that if government organizations open up and show the public what decisions are made, how they are made[,] and what the results are, people will automatically have more trust in government,' transparency . . . has consequently been pushed by international organizations, governments, and donors as standard practice for increasing trust.").

40. *See* Jon D. Michaels, *Deforming Welfare: How the Dominant Narratives of Devolution and Privatization Subverted Federal Welfare Reform*, 34 SETON HALL L. REV. 573, 577 n.7 (2004) (citing another article about the "concerns with privatization, including how greater privatization leads to less public accountability and how privatization leads to a shrinking of opportunities for meaningful public engagement").

being privatized.[41] Several scholars have documented the reduced transparency that accompanies privatization.[42]

Suzanne Mettler is a political scientist who has identified a nexus of indirect federal policies, like incentivizing tax breaks and corporate subsidies, that give rise to "the submerged state."[43] The submerged state thrives in an environment of low transparency. Mettler describes how the submerged state affects public accountability; it "eludes most ordinary citizens: they have little awareness of its policies or their upwardly redistributive efforts, and few are cognizant of what is at stake in reform efforts."[44] Transparency is reduced when private contractors appear more distant from the government, and when programs no longer seem public.[45] When a program is seen as more privatized, transparency may be seen as less important; the assumption may be that the market is supposed to correct for failures. But often, the market will not correct for failures if a private contractor has a monopoly or a large degree of

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41. JOHN D. DONAHUE, DISUNITED STATES 130–33 (1997); *see* MARTHA MINOW, PARTNERS, NOT RIVALS: PRIVATIZATION AND THE PUBLIC GOOD 153 (2002) (arguing that privatization of social services decreases the government's commitment to those services).

42. *See* Martha Minow, *Outsourcing Power: How Privatizing Military Efforts Challenges Accountability, Professionalism, and Democracy*, 46 B.C. L. REV. 989, 999–1000 (2005) (discussing how the lack of transparency in the use of private contractors compounds the problem of assessing the impact of their increasing role in the U.S. government). Preeminent privatization scholars have recognized the veiled nature of privatization and how strategic government use capitalizes on this dynamic. *See, e.g.*, Jon D. Michaels, *Privatization's Pretensions*, 77 U. CHI. L. REV. 717, 719 (2010) (arguing that privatization "workarounds" allow policymakers to substantively change the policies they are supposed to be neutrally administering) [hereinafter Michaels, *Pretensions*]; Jon D. Michaels, *Privatization's Progeny*, 101 GEO. L.J. 1023, 1088 (2013) (arguing that the government today is "commingling political and businesslike agendas in ways both liberating and threatening") [hereinafter Michaels, *Progeny*]; Jon D. Michaels, *Running Government Like a Business . . . Then and Now*, 128 HARV. L. REV. 1152, 1155 (2015) [hereinafter Michaels, *Running Government*] ("In [the] rush to re-embrace business-like government, [the United States is] either forgetting or affirmatively repudiating the principles and practices that legitimized American public administration as a distinct normative and legal enterprise."); Suzanne Mettler, *Reconstituting the Submerged State: The Challenges of Social Policy Reform in the Obama Era*, 8 AM. POL. SCI. ASSOC. 803, 804 (2010) (arguing that many policies of the U.S. government lie beneath the surface, hidden in plain sight—the policies of privatization). *See generally* Metzger, *supra* note 23 (discussing how expansions in privatization of government programs mean that the constitutional paradigm of a sharp separation between public and private is increasingly at odds with the blurred public-private character of modern governance); Gillian E. Metzger, *Private Delegations, Due Process, and the Duty to Supervise, in GOVERNMENT BY CONTRACT: OUTSOURCING AND AMERICAN DEMOCRACY* 291, 292 (Martha Minow & Jody Freeman eds., 2009) [hereinafter Metzger, *Private Delegations*] (explaining the "two prisms through which constitutional law currently approaches privatization").

43. Mettler, *supra* note 42; *see* SUZANNE METTLER, *THE SUBMERGED STATE: HOW INVISIBLE GOVERNMENT POLICIES ARE UNDERMINING AMERICAN DEMOCRACY* 1–30 (2011) [hereinafter METTLER, *THE SUBMERGED STATE*].

44. Mettler, *supra* note 42, at 803.

45. Metzger, *Private Delegations*, *supra* note 42, at 307.

autonomy on the delegated government task.[46] Mettler argues that ignorance, apathy, and wasteful spending from limited transparency stand in the way of a "vibrant and visible" democracy.[47] Similarly, Alfred C. Aman and Landyn W. Rookard argue that privatization creates a "transparency deficit."[48] They argue that limited transparency is the first "hurdle" that must be overcome if citizens are to play an active role in democratic decisions that affect their lives.[49]

Professor Jon D. Michaels, a prominent privatization scholar, has highlighted how notions of the submerged state and transparency deficit are not merely detrimental but also might, in some instances, be purposeful and even desired by government officials.[50] High degrees of privatization give the government more power to govern without public gaze and potential disapproval.[51] With minimal transparency, the government can more easily shield the public from its choices and its failures. Accordingly, public accountability suffers because limited transparency has "the effect of hiding executive decisions and concealing vital information from the public, which might otherwise be in a position to oppose the decisions or punish the executive at the ballot box."[52]

Notably, none of these scholars or the frameworks they propose are calling for a boycott of privatization. Nor do they posit that transparency itself will fix the problems posed by privatization. Instead, they offer reasons for caution and for questioning the recent ramp-up of government privatization.[53] When the government selects a model of privatization, there should be mechanisms in place that require transparency as a condition for participation to correct and mitigate the effects of the submerged state. Only then will the public be able to measure whether public values are being met. Granted, transparency, like public accountability, is only a means to an end. But until more than seventeen percent of Americans think that democracy in the United States sets a

46. *Id.* at 296.

47. METTLER, *THE SUBMERGED STATE*, *supra* note 43, at 27.

48. Alfred C. Aman & Landyn W. Rookard, *Private Government and the Transparency Deficit*, 71 ADMIN. L. REV. 437, 437, 442 (2019) (arguing that public transparency mechanisms have not kept pace with the increasing level of government privatization).

49. *Id.* at 442–43.

50. Michaels, *Pretensions*, *supra* note **Error! Bookmark not defined.**, at 718–19.

51. *See id.* at 719 (arguing that privatization workarounds "enable the executive to exercise greater unilateral discretion—at the expense of the legislature, the judiciary, the people, and successor administrations").

52. *Id.* at 733.

53. *See generally* DONALD COHEN & ALLEN MIKAELIAN, THE PRIVATIZATION OF EVERYTHING: HOW THE PLUNDER OF PUBLIC GOODS TRANSFORMED AMERICA AND HOW WE CAN FIGHT BACK (2021) (arguing that ever since former President Ronald Reagan labeled government a dangerous threat, privatization has touched every aspect of our lives, from water and trash collection to the justice system and the military).

good example for the rest of the world,[54] transparency should be prioritized.

In addition to reduced transparency, high degrees of privatization risk reducing public accountability through misaligned incentives.[55] This misalignment between the government and the private sector can open the door to wasteful government spending, fraud, and abuse.[56] Unlike the government, whose ultimate incentive is to deliver on public values, the private sector's ultimate incentive is profit.[57]

The ideal model of privatization is one where the government can promote public values while the private contractor simultaneously profits from the arrangement. But when these incentives stand in tension without adequate safeguards, the pursuit of profit may displace the government's own goals. For example, some scholars have documented how private prisons, operating with limited government oversight, have an incentive to increase their incarcerated populations because they receive greater profits through higher rates of detention.[58] In this scenario, the pursuit of profit has replaced or overridden any public value of justice.

The more control and responsibility a private contractor has over a program, the greater the risk of replacing public values with the pursuit of profit. This is not because private contractors are inherently evil. Far from it. But policymakers must recognize that "[m]arkets and democracy are not the same.[59] When operating with high degrees of control and autonomy, private contractors have more latitude to pursue their market-based objectives. Conversely, the less autonomy a contractor has, the more they are bounded by the incentives and goals the government provides. Fraud and abuse perpetuated by the pursuit of profit are less likely to develop when the government has a direct line to the contractor and when the private contractor is bound by the government's incentives. Part II illuminates this phenomenon.

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54. Richard Wike et al., *What People Around the World Like—and Dislike—About American Society and Politics*, PEW RSCH. CTR. (Nov. 1, 2021), https://www.pewresearch.org/global/2021/11/01/what-people-around-the-world-like-and-dislike-about-american-society-and-politics/ [https://perma.cc/4UJ3-TTHH].

55. Some advocates of privatization argue that government incentives are already misaligned. *See* Alex Kozinski & Andrew Bentz, *Privatization and Its Discontents*, 63 EMORY L.J. 263, 264 (2013) ("Efficiency isn't something you can usually count on in the government because the incentives are misaligned. If you're the government and your costs increase, you can just raise taxes. But if you're a private company, you have to figure out how to reduce costs or increase revenue, or you'll go bankrupt.").

56. *Id.*

57. Aman & Rookard, *supra* note 48, at 481 (discussing how citizens and consumers are not the same thing).

58. Patrice A. Fulcher, *Hustle and Flow: Prison Privatization and the Prison Industrial Complex*, 51 WASHBURN L.J. 589, 625 (2012).

59. Aman & Rookard, *supra* note 48, at 481.

To mitigate the risk of misaligned incentives, leaders should take certain steps when choosing the route of privatization. First, government leaders should set clear rules and standards rooted in public values as a condition for private sector participation in public programs. Removing any ambiguity over the role and responsibilities of private contractors will reduce the risk of contractors exploiting their power to pursue private aims. Similarly, the government should have clear mechanisms to remove contractors if they are not acting in alignment with public values. This may require pre-contract planning for how a government agency would absorb a delegated body of work in the event of contractor malfeasance—significantly more difficult in a high-privatization model. Furthermore, any chosen model of privatization should have a high degree of coordination between the public and private sector partners. Coordination is more likely when private contractors are directly accountable to the government. This oversight serves to bound the delegated authority. Finally, in many instances, the government should take steps to reduce competition between contractors. Competition creates the opportunity for winners and losers. In a government program, all citizens should be winners.

These recommendations provide a simple framework to address problems that have common but often overlooked roots.[60] The pursuit of privatization is often fueled by the promise of economic efficiency.[61] This view comes from reductive and ahistorical arguments that private industry operates more efficiently and effectively than government bureaucracy.[62] Proponents of privatization argue that competition, choice, and innovation are vital to increase efficiency[63] and that

60. *See infra* Part II.

61. *See* Teresa Curristine et al., *Improving Public Sector Efficiency*, 7 OECD J. ON BUDGETING 1, 4 (2007) (describing efficiency to mean "providing more public services with less public spending").

62. Michaels, *Pretensions*, *supra* note 42, at 725 (discussing that one of the lures of privatization is market competition and the mistaken belief that "private firms can provide good and services 'better, faster, and cheaper' than the government"); *see* Mark Moore, *Symposium: Public Values in an Era of Privatization – Introduction*, 116 HARV. L. REV. 1212, 1218 (2003) ("Much of the appeal of privatization is based on claims that some form of privatization will increase the efficiency and effectiveness of government.").

63. *See* KETTL, *supra* note 33 (discussing the overly simplistic characterization of the government and the private market as opposing forces); *see also* J. PETER GRACE, BURNING MONEY: THE WASTE OF YOUR TAX DOLLARS 85–87 (1984) (arguing that public agencies suffer diseconomies of scale and that privatization mitigates this problem); Ronald A. Cass, *Privatization: Politics, Law and Theory*, 71 MARQ. L. REV. 450, 466 (1988) (discussing how many contracting proposals "posit that the mission can be accomplished better at lower cost" under a privatized structure); JOSÉ GÓMEZ-IBÁÑEZ & JOHN R. MAYER, GOING PRIVATE: THE INTERNATIONAL EXPERIENCE WITH TRANSPORT PRIVATIZATION 2–7 (1993) (arguing that there is greater innovation in the private sector and that privatization often saves money); E.S. SAVAS,

government alone cannot deliver on these terms.[64]

This argument is much too narrow and severely flawed. First, some models of privatization may be more efficient than others. Proponents of privatization often assume that all models of privatization inherently promote efficiency because of market competition.[65] Yet not all forms of privatization involve market competition. And not all markets are truly competitive.[66] Many are not.[67] Increasing trends toward greater consolidation in many industries, including health care, further reduce the likelihood of a truly competitive market.[68] Unless competition is guaranteed, relying on the "competitive market" to promote public values is like playing roulette.

Furthermore, efficiency is but one goal of good government.[69] By narrowly focusing on efficiency, other public values, such as equity, are swept aside.[70] Private prisons represent one area of government control where privatization has negatively impacted equity.[71] A 2016 report from the Department of Justice found that private prisons have a twenty-eight percent higher rate of assault between incarcerated individuals, and incarcerated individuals in these prisons possessed twice as many illicit weapons than their counterparts in federally-run facilities.[72] Surely, efficiency should not matter more than the actual livelihood of

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PRIVATIZATION: THE KEY TO BETTER GOVERNMENT 288–91 (1987) (describing privatization as a benefit to the output of and delivery of public services).

64. Fifty-six percent of Americans believe that the government is almost always wasteful and inefficient. There is a partisan divide to this belief; nearly seven-in-ten Republicans say government is wasteful and inefficient, while only forty-seven percent of Democrats say so. *Views of Government and the Nation*, PEW RSCH. CTR. (Dec. 17, 2019), https://www.pewresearch.org/politics/2019/12/17/views-of-government-and-the-nation/ [https://perma.cc/VTU9-QZ4V].

65. ELLIOT D. SCLAR, YOU DON'T ALWAYS GET WHAT YOU PAY FOR: THE ECONOMICS OF PRIVATIZATION 15 (2000).

66. *See* David Wessel, *Is Lack of Competition Strangling the U.S. Economy?*, HARV. BUS. REV. (2018), https://hbr.org/2018/03/is-lack-of-competition-strangling-the-u-s-economy [https://perma.cc/38PS-QX2E] (noting how most American industries have become more concentrated and less competitive and arguing that "the government's approach to antitrust violations is due for an overhaul").

67. *Id.*

68. *Id.*

69. *See* Rafeal La Porta et al., *The Quality of Government*, 15 HARV. J.L. ECON. & ORG. 222, 223 (1999) (discussing how good government performance can be measured through a multitude of metrics including "lower inequality, greater diversity among people, or maintained traditions" as well as more economic measures including property rights, low taxes, effective spending, and democracy generally).

70. *See* KETTL, *supra* note 33, at 6 (noting how equity is a public value for a government operating in the public interest).

71. OFF. OF THE INSPECTOR GEN., U.S. DEP'T OF JUST., REVIEW OF THE FEDERAL BUREAU OF PRISONS' MONITORING OF CONTRACT PRISONS 18 (2016).

72. *Id.*

individuals. Efficiency at all costs should not be the mantra or purpose of the government.

As this discussion highlights, the benefits achieved from focusing on public accountability are greater than the benefits of focusing narrowly on efficiency alone. A broader focus on accountability leads to the promotion of other values such as equity, quality, and responsiveness, that prioritizing efficiency alone might not. Models of privatization with high degrees of public accountability are most likely to promote these values *and* be efficient. Strong oversight of private contractors reduces the likelihood that government funds will be used for private profit. Models of privatization without such oversight risk misaligned incentives and wasteful spending.

The stakes are high. Diminished public accountability through high degrees of privatization short-circuits the democratic process and leaves efficiency to chance.

II. TWO COMPETING MODELS OF PRIVATIZATION IN MEDICARE

Concerns about efficiency, rather than public accountability, are common when policymakers discuss the future of Medicare.[73] Whether Medicare is more efficient than private insurance is a common debate in the public arena.[74] And scholars continue to vehemently disagree on the answer.[75] As Part II will highlight, this is the wrong question to be asking. This question's framing obscures the true relationship between Medicare and private insurance.

Private insurance and Medicare are not two diametrically opposed forces. As Part II seeks to illuminate, private insurers play a major role in both Original Medicare and Medicare Advantage—just through two different models of privatization. This section looks beyond efficiency to the broader discussion of privatization and public accountability in Medicare.

Little attention has been paid to the structural design of each model of Medicare delivery and the implications each presents for accountability

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73. *See generally* JESSICA MITTLER, THE COMMONWEALTH FUND, MEDICARE: MAKING IT A FORCE FOR INNOVATION AND EFFICIENCY *passim* (July 2005) (discussing the importance and profound impact of Medicare efficiency).

74. John C. Goodman & Thomas Saving, *Is Medicare More Efficient Than Private Insurance?*, HEALTH AFFS. (Aug. 9, 2011), https://www.healthaffairs.org/do/10.1377/forefront.20110809.012862/full/ [https://perma.cc/23JP-8FVW].

75. *Compare* Diane Archer, *Medicare Is More Efficient Than Private Insurance*, HEALTH AFFS. (Sept. 20, 2011), https://www.healthaffairs.org/do/10.1377/forefront.20110920.013390/abs/ [https://perma.cc/Q36M-2ZVL] (arguing that Medicare is more efficient than sole reliance on private insurers), *with* Michael F. Cannon, *Private Insurance Is More Efficient than Medicare—By Far*, CATO INST. (Sept. 21, 2011), https://www.cato.org/blog/private-insurance-more-efficient-medicare-far [https://perma.cc/GM84-49QB] (arguing that private insurance is superior to Medicare administration on efficiency grounds).

and the promotion of public values. Part II will fill this gap. It begins by illuminating the design of each privatization model before delving into the weaknesses each presents and the vulnerabilities that have been exposed over the years.

Original Medicare, operating as a public-private partnership, has better promoted public accountability through providing more transparent data measurement, placing the government's hand at the wheel, and establishing clear rules of the road. Medicare Advantage, operating as a form of open-competition privatization, has not realized its promise of private sector efficiency due to limited transparency, insufficient oversight, and misaligned incentives between the government and its contractors.

Tracing the history and impact of these models serves two purposes. First, greater knowledge will silence opponents of Medicare who claim that it wipes out the role of the market and private insurance. But more importantly, illuminating the models of privatization in each program will better allow for more constructive conversations about the role of private insurance in the future of American health care.

Part II defines the characteristics of Original Medicare and Medicare Advantage's privatization models and each model's impact on public accountability. This section then examines why the models were adopted, how they have evolved over the years, and the resulting vulnerabilities that persist today.

A. *Original Medicare: The Public-Private Partnership Model*

Original Medicare, the program's first delivery method, was imagined from its conception as a public-private partnership.[76] The U.S. Government Accountability Office broadly defines a public-private partnership as a "a contractual arrangement that is formed between public and private-sector partners . . . typically involv[ing] a government agency contracting with a private partner to renovate, construct, operate, maintain, and/or manage a facility or system, in whole or in part, that provides a public service."[77] As this definition highlights, public-private partnerships are broad.[78] They characterize many forms of contracts and

76. K. Ignagni, *Medicare Part D: A Successful Public-Private Partnership*, THE COMMONWEALTH FUND (July 1, 2006), https://www.commonwealthfund.org/publications/other-publication/2006/jul/medicare-part-d-successful-public-private-partnership [https://perma.cc/59T9-KR69].

77. U.S. GOV'T ACCOUNTABILITY OFF., GAO/GGD-99-71, PUBLIC-PRIVATE PARTNERSHIPS: TERMS RELATED TO PUBLIC-PRIVATE PARTNERSHIPS 13 (Apr. 1999); *see* Anika Guevara, *Public-Private Partnerships, An Innovative Solution for Declining Infrastructure*, 47 URB. LAW. J. 309, 310 (2015) (providing the same definition to describe public-private partnership privatization structures).

78. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 77.

vary widely in their degree of delegation to the private sector.[79] Two aspects of this definition shed light on how Original Medicare encourages public accountability.[80]

First, the government remains the driver of the relevant program.[81] This creates direct accountability from the contractor to the government. Regardless of how minimal or far-reaching the delegation of control and responsibility is, this direct accountability structure seeks to minimize the risk of misaligned goals and rogue contractor behavior because the government is the entity setting the agenda. The government remains the leader of the program, with a private partner there to help the government meet its bottom line.[82]

As the driver, the government can adjust the level of delegated control and responsibility at any point if things go wrong, if goals start to diverge, and if the private contractors begin to amass too much power. And if things go well, the government can delegate further duties to the private contractor.

In an ideal scenario, the private contractor is merely the means to the end of the government program running smoothly. But with a high degree of delegation, the private contractors may also seize a larger leadership role. This role can grow with time, and without adequate controls set by the government, it can disrupt the government's authority to reign it in. For this reason, some scholars consider public-private partnerships to be "shared-authority" structures.[83] Too much delegation, however, risks compromising public accountability. It is up to the government to strike the right balance to achieve its own goals.

Second, public-private partnerships require a high degree of government transparency because the government exists as the face of the program.[84] Because public-private partnerships often operate with the private partner behind the scenes, acting as an intermediary, the public is less likely to perceive the relevant program as privatized. As Part I illustrated, when the government is perceived as the deliverer of a good, there is heightened pressure from the public for the program to prioritize transparency, quality measurement, and efficient operation.

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79. *Id.*

80. *Id.* at 13–14.

81. *Id.*

82. *Id.*

83. Jens K. Roehrich et al., *Are Public-Private Partnerships a Healthy Option? A Systematic Literature Review*, 113 SOC. SCI. & MED. 110, 112 (2014).

84. *See* MANAL FOUAD ET AL., INT'L MONETARY FUND, MASTERING THE RISKY BUSINESS OF PUBLIC-PRIVATE PARTNERSHIPS IN INFRASTRUCTURE 37–39 (2021).

The public-private partnership model has been a part of Original Medicare since its passage in 1965.[85] Recognizing what it would take to get enough votes in Congress, Medicare architect Wilbur Cohen[86] conceived Medicare at the outset as a public-private partnership between CMS[87] and the private insurance industry.[88] A purely government administered program was never a realistic possibility—nor Cohen's desired end goal.[89] To avoid great market disruption and to appease the powerful American Medical Association (AMA), CMS imagined a role for private insurers to manage and oversee the Medicare claims process.[90] This arrangement was envisioned so that private insurers could continue to play a role in the health insurance marketplace as it transitioned to a more publicly controlled space.[91]

When the time of legislative possibility[92] arrived in Congress, the Medicare statute codified this arrangement.[93] Two sections of the Original Medicare bill codified the public-private partnership: Sections 1816 and 1842.[94] These sections created Fiscal Intermediaries (FIs) and carriers[95] whose principal goal was to manage Medicare claims

85. Susan Bartlett Foote has played a pivotal role in tracing the history of contracting in Original Medicare until 2007, but few other scholars have devoted any attention to this area of Medicare policy. *See* Susan Bartlett Foote, *The Impact of the Medicare Modernization Act's Contractor Reform on Fee-For-Service Medicare*, 1 ST. LOUIS U. J. HEALTH L. & POL'Y 67, 67 (2007) (discussing how for almost a decade prior to Medicare's passage, legislators and the American Medical Association clashed over the appropriate role that the federal government should play in the health care sector).

86. *See* THEODORE R. MARMOR, THE POLITICS OF MEDICARE 9, 17, 30 (2d ed. 2000) (detailing Wilbur Cohen's involvement in the legislative passage of Medicare).

87. Until 2001, CMS was known as the Health Care Financing Administration (HCFA). CTRS. FOR MEDICARE & MEDICAID SERVS., DEP'T HEALTH & HUMAN SERVS., AB-01-133, PROGRAM MEMORANDUM 1 (Sept. 24, 2001).

88. There is evidence this partnership was not meant to be temporary either, but rather, a strategic long-term choice by the government. Wilbur Cohen, one of the central architects of Medicare, reportedly said to President Johnson, that insurer Blue Cross Blue Shield "would have to do all the policing so that the government wouldn't have its long hand [in there]." Nicholas Bagley, *Bedside Bureaucrats: Why Medicare Reform Hasn't Worked*, 101 GEO. L.J. 519, 528 (May 2003).

89. *Id.*

90. *Id.*

91. *Id.*

92. *See* MARMOR, *supra* note 86, at 84–85 (discussing the multiple-decade challenge to passing a workable Medicare bill in both chambers of Congress).

93. *Id.*

94. 42 U.S.C. §§ 1395h(a)–(k), 1395u(a)–(u).

95. 42 U.S.C. §§ 1395h(a)–(k), 1395u(a)–(u). Section 1816 granted authority to FIs to manage the claims process for Part A, and Section 1842 allowed carriers to administer Medicare and oversee the claims process for Part B. For Part A, hospital groups, extended care facilities, and home health agencies were given the power to nominate FIs to manage key administrative processes such as hospital relations, reimbursements, utilization, and audits. The government

processing for Medicare Part A[96] and Part B.[97] At first, the FI and carrier selection process gave substantial deference to Medicare's private partners.

Most fundamentally, the contracting arrangement side-stepped the typical requirements agencies must follow under the Federal Acquisition Regulation (FAR).[98] The FAR requires that private contractors in government programs have "a track record of successful past performance" or "demonstrate a current superior ability to perform."[99] This requirement promotes quality private sector participation in public-facing programs. In keeping with this spirit, FAR also compels contractors to "promote and provide for full and open competition in soliciting offers and award[s]."[100]

Yet, to ensure that Original Medicare's private partners were interested in participating, the government initially granted provider associations the authority to select FIs.[101] Because the AMA was the preeminent provider association at the time challenging the passage of Medicare, they led this selection process.[102] But all along, CMS knew exactly how the selection process was going to play out. The AMA selected Blue Cross Blue Shield Association (Blue Cross) to serve as the first and primary FI for Part A.[103] Blue Cross subcontracted with local Blue Cross insurers across the country to manage the hospital insurance program on a local level.[104] This was expected; Blue Cross was the primary health insurer that hospital groups trusted, and competition among other insurers was minimal.[105] Carriers were selected by the Secretary of the Department of Health and Human Services (HHS) from

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would directly contract with carriers under Part B, and each carrier would be assigned to specific geographic areas.

96. Part A, "Hospital Insurance for the Aged and Disabled," covers most medically necessary hospital, skilled nursing facility, home health, and hospice care. Part A is financed through a payroll tax and is free to beneficiaries eligible for social security. 42 U.S.C. §§ 1395(c)–(i)(4).

97. Part B, "Supplementary Medical Insurance Benefits for the Aged and Disabled," covers physician and outpatient services. Part B includes most medically necessary doctors' services, preventive care, durable medical equipment, hospital outpatient services, laboratory tests, X-rays, mental health care, and some home health and ambulance services. Beneficiaries pay a monthly premium to receive this coverage. 42 U.S.C. §§ 1395(j)–(w)(5).

98. *See generally* 48 C.F.R. § 1.1 (2009) (detailing the purpose, authority, and issuance of the FAR requirements).

99. 48 C.F.R. § 1.102(b)(1)(ii) (2009).

100. 48 C.F.R. § 6.101(a) (2009).

101. CHRISTY FORD CHAPIN, ENSURING AMERICA'S HEALTH: THE PUBLIC CREATION OF THE CORPORATE HEALTH CARE SYSTEM 194–232 (2015).

102. Wilbur J. Cohen, *Reflections on the Enactment of Medicare and Medicaid*, 1985 HEALTH CARE FIN. REV. 3, 3–11.

103. *Id.*

104. Foote, *supra* note 85, at 69.

105. *Id.*

"a small pool of health insurers."[106] As these particular selection decisions highlight, the selection process lacked full and open competition.[107]

At no point was CMS willing to compromise its leadership authority. Rather, this initial contracting arrangement allowed private insurers to be a secondary—the shared authority partner.[108] CMS made this initial choice to give private insurers a role in selecting contractors with the posterity of Medicare in mind.[109] Allowing private contractors the authority to assist in the contract selection process would help assuage the fear of private insurers uneasy about Original Medicare's passage that they would stand to lose business. And in time, the control granted to private contractors could be reduced if issues arose.

Beyond deference in the contractor selection process, the government also provided great deference to the private contractors in other areas. Specifically, the initial Medicare statute provided limited authority for the government to terminate FI and carrier contracts, while the contractors themselves could easily terminate the contract.[110] Contractors were also paid initially based on allowable costs, mitigating any incentives that would boost quality of performance.[111] Furthermore, the contracts themselves required cost-reimbursement, meaning that the government was on the hook for all of the risk.[112] This delegated control was intended to increase providers' acceptance of Original Medicare and minimize disruption to payors.[113]

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106. The Johnson administration divided the nation into sixty-four unique carrier regions. One hundred and forty private insurers submitted proposals to become Medicare carriers, and forty-nine were selected by the Secretary of HHS. ROBERT CUNNINGHAM III & ROBERT M. CUNNINGHAM JR., THE BLUES: A HISTORY OF BLUE CROSS AND BLUE SHIELD SYSTEM 147, 181 (1997).

107. *Patients First: A 21st Century Promise to Ensure Quality and Affordable Health Coverage Before the Subcommm. on Health & Subcomm. on Oversight & Investigations of the H. Comm. on Energy & Com.*, 107th Cong. 13 (2001) (testimony of Michael F. Mangano, Acting Inspector Gen., Dep't of Health & Hum. Servs., & Leslie G. Aronovitz, Dir., Health Care Issues, U.S. Gen. Acct. Off.) [hereinafter *Hearing*].

108. Foote, *supra* note 85, at 68.

109. *Id.* at 69.

110. *See* U.S. GOV'T ACCOUNTABILITY OFF., GAO-15-372, MEDICARE ADMINISTRATIVE CONTRACTORS: CMS SHOULD CONSIDER WHETHER ALTERNATIVE APPROACHES COULD ENHANCE CONTRACTOR PERFORMANCE 1 (2015) ("CMS could not terminate contracts with fiscal intermediaries or carriers unless the contractors were first provided with an opportunity for a hearing.").

111. *Hearing*, *supra* note 107, at 13.

112. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 110, at 6.

113. Foote, *supra* note 85, at 68–69.

Over the next thirty years, the public-private contracting arrangement led to a continuous tug-of-war between the public and private partners.[114] Just how much control and responsibility delegation was appropriate became the constant question.[115] And just how much privatization would cause an effective public-private partnership to crumble?

At first, the government allowed the level of control given to private contractors to grow further.[116] The government permitted the most "successful" contractors to acquire additional contracts.[117] Multi-state networks of FIs and carriers became common, as did the degree of variation between contractors.[118] As contractors' networks grew, so too did their ability to shape the program. Over time, their administrative control extended beyond claims processing duties to wide-reaching aspects of Medicare administration.[119] By the late 1990s, FIs and carriers were responsible for five distinct functional areas: claims processing, payment safeguards, fiscal responsibility, beneficiary services, and administrative activities.[120] By this time, leaders at CMS and HHS were recognizing that FIs and carriers were the entities who "actually operate [Medicare]."[121] There were approximately fifty contractors operating as FIs and carriers at the time.[122] All the while, the organization and selection of contractors "remained much the same."[123]

As the administrative power of the FIs and carriers grew, the government began to desire greater safeguards on contractor authority because goal alignment between the government and the private insurers had started to disperse.[124] The government wanted to ensure that it

114. *Id.* at 68, 71. *See generally Hearing*, *supra* note 107, at 123 (discussing the enactment of the Health Insurance Portability and Accountability Act, which put restrictions on Medicare contractors).

115. Foote, *supra* note 85, at 70–71.

116. *Id*. at 70.

117. *Id.*

118. *See id*. ("Successful contractors took advantage of departures to acquire additional carrier and FI contracts to build multi-contract networks. The growth of multi-state networks led to significant variations in the size, sophistication, resources, and productivity of contracting services."); *see also* Susan Bartlett Foote et al., *Resolving the Tug-of-War Between Medicare's National and Local Coverage*, 23 HEALTH AFFS. 108, 111, 115, 118 (2004) (discussing the disparities between national and local coverage determinations among contractors).

119. *See Hearing*, *supra* note 107, at 9 (describing the various roles FIs and carriers play in Medicare Administration: "they conduct reviews and hold hearings on appeals from physicians and providers; they respond to beneficiary inquiries; they make coverage decisions for new procedures and devices in local areas; and they conduct a variety of different providers services, such as enrolling new providers in the program, and educating them on Medicare's rules and regulations and billing procedures").

120. *Id.* at 14.

121. *Id.* at 12.

122. *Id.* at 14.

123. *Id.* at 12.

124. *Id.*

retained enough direct authority to supervise the contractors' management of the Original Medicare program, rather than exist as merely the public face of the program.[125] At HHS, "fix it" became the daily order from Secretary Tommy G. Thompson to Administrator Thomas A. Scully.[126]

The Health Insurance Portability and Accountability Act (HIPAA) of 1996 took an incremental step toward this goal through the creation of the Medicare Integrity Program.[127] This program aimed to boost overall program integrity by improving the payment safeguard functions of contractors.[128] But in the eyes of leaders at CMS at the time, this reform was just the tip of the iceberg for what was needed to dramatically improve the program and tip the scales back toward a more stable public-private partnership.[129]

In 2001, a joint hearing by leaders of HHS and CMS brought several bubbling criticisms of the FI and carrier contracting arrangement to light.[130] Michael F. Mangano, the Acting Inspector General at HHS, summarized several of the issues he saw with contractor administration, including:

> [L]apses in the contractor's own integrity and involvement in such things as misusing government funds while concealing their actions, altering documents and falsifying statements of specific work that was performed, preparing bogus documents to falsely demonstrate superior performance . . . and adjusting their claims processing so that systems edits, designed to prevent inappropriate payments were turned off.[131]

He also emphasized that CMS had recently settled suits with fourteen Medicare contractors for over $350 million dollars.[132] With a high degree of delegation, the contractors' pursuit of profit kept the government from adequately curtailing fraud and abuse. The bottom line from the government's testimony was simple: "[a] strong Medicare demands a rational contracting system."[133] "Rational" meant greater government

125. *Hearing*, *supra* note 107, at 12.

126. *Id.* at 8; Foote, *supra* note 85, at 72.

127. *Health Insurance Portability and Accountability Act (HIPAA)*, NURSE KEY, https://nursekey.com/health-insurance-portability-and-accountability-act-hipaa/ [https://perma.cc/5DA4-BLVP] (last visited Dec. 28, 2022).

128. *Hearing*, *supra* note 107, at 14.

129. *Id.* at 14–15, 21.

130. *See id.* (including testimony by Leslie G. Aronovitz, Alfred J. Chiplin, Timothy F. Cullen, Michael F. Mangano, Scott P. Serota, Thomas Scully and additional materials submitted by the American Dental Association and the Medical Device Manufacturers Association).

131. *Id.* at 12.

132. *Id.*

133. *Id.* at 8.

authority to direct the public-private partnership according to the government's terms only.[134] The government's desired solution was legislation.[135] Legislation was desired to "provide CMS with greater flexibility, promote competition, increase CMS's ability to negotiate incentives, and improve their contractor performance evaluation process."[136] Several decades removed from Medicare's passage, the new era of Medicare leadership was no longer interested in appeasing the AMA. They wanted their hands firmly on the controls.[137]

But at the same time, leaders at HHS and CMS in the early 2000s did not seem to want absolute control and responsibility over program administration back in the hands of the government. There appeared to be no desire to fully untangle the public-private partnership that had been built over the last thirty years and banish any semblance of privatization. Rather, the government wanted more control to be able to steer the program and dictate the terms of the multimillion dollar contracts it was providing to the insurance industry.[138]

CMS wanted a true public-private partnership, not one in name only.[139] Leaders were explicit about this: "CMS needs to be given greater flexibility in the methods it uses to *select, organize, and supervise* its Medicare contractors."[140] A more organized, competitive, and rational contracting system would allow leaders at CMS to better steer the ship.

After a few failed attempts at passing contractor reform,[141] in 2003, CMS finally received what it asked for. Section 911 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA)—aptly titled "Increased Flexibility in Medicare Administration"—significantly reformed not only the contractor selection process but the nature of the contractors themselves.[142] The MMA directed CMS to merge and replace FI and carriers with Medicare Administrative Contractors (MACs) by 2011.[143] The MACs were

134. *Hearing*, *supra* note 107, at 7.

135. *Id.* at 13.

136. *Id.*

137. *Id.* at 10, 16–18.

138. For starters, CMS wanted the ability to contract with "entities other than insurance companies." *Id.* at 12.

139. *Id.* at 6.

140. *Hearing*, *supra* note 107, at 12 (emphasis added).

141. *See* Foote, *supra* note 85, at 71–73 (discussing failed proposals to pass contracting reform prior to 2003 and noting how the Medicare contracting reforms in the MMA incorporated most of a 2001 bi-partisan House bill (H.R. 2768) introduced by Subcommittee Chairman Nancy Johnson (R-CT) and Ranking Member Pete Stark (D-CA) that never gained traction in the Senate).

142. Medicare Prescription Drug, Improvement, and Modernization Act of 2003, 42 U.S.C. § 1395kk-1.

143. There are two primary types of MACs: A/B MACs and DME MACs. A/B MACs process claims for Medicare Parts A and B which together comprise "Original Medicare."

envisioned to be the "single point-of-contact" for providers across both Part A and Part B.[144] They would continue to administer the far-reaching responsibilities that FIs and carriers previously were responsible for, just in a more unified way.[145] The MAC structure was supposed to simplify the contracting structure. To achieve this aim, the MMA called for fifteen distinct, non-overlapping MAC geographic regions,[146] rather than the "incoherent" and variable geographic regions that FIs and carriers previously controlled.[147]

The MMA also included reforms that sought to address some of the quality concerns and instances of fraud and abuse that had taken root.[148] Unlike the FI and carrier selection process, the Medicare contracting reforms gave the Secretary of HHS the authority to monitor contractor quality through "contract performance requirements."[149] To "provide incentives for [MACs] to provide quality service and to promote efficiency,"[150] the reforms structured the new MAC contracts as cost-

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Currently, there are 12 A/B MACs that collectively process ninety-five percent of all fee-for-service claims. DME MACs make claims to durable medical equipment suppliers. There are four current DME MACS that process five percent of all fee-for-service claims. This Article will primarily analyze the A/B MACs due to the high volume of claims they oversee, and the greater interface they have with beneficiaries. For simplicity and clarity, this Article will refer to the A/B MACs as the MACs. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 110; *What's a MAC*, CMS.GOV (Jan. 12, 2023, 9:44 AM), https://www.cms.gov/Medicare/Medicare-Contracting/Medicare-Administrative-Contractors/What-is-a-MAC#:~:text=Currently%20there%20are%20 12%20A,36%20million%20Medicare%20FFS%20beneficiaries [https://perma.cc/EK2A-TN 2M].

144. Each MAC is responsible for setting up and managing a Medicare provider customer service program in its jurisdiction that must include: (1) a provider outreach and education program, (2) a contact center to handle provider inquiries, and (3) sufficient self-service technology for twenty-four-seven provider access to Medicare information. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 110, at 12. Today, MACs support CMS across six functional areas: provider enrollment, provider customer services, payment integrity, financial management, claims payment and payment notices, and claims processing. Across these six areas MACs have eleven primary responsibilities: process Medicare claims, enroll providers in Medicare, respond to provider inquiries, handle redetermination requests (first stage of appeals), review medical records for selected claims, perform provider reimbursement services, review and audit institutional provider costs, educate providers about Medicare fee-for-service billing requirements, establish local coverage determinations, support CMS demonstration projects, and coordinate with CMS and other fee-for-service contractors. *See* MICHAEL O. LEAVITT, MEDICARE CONTRACTING REFORM: A BLUEPRINT FOR BETTER MEDICARE III-2 (2005) (discussing how MAC contracts would be focused on three core areas: customer service, operational excellence, and financial management).

145. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 110, at 2.

146. *Id.* at 22.

147. Foote, *supra* note 85, at 75.

148. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 110, at 34.

149. Medicare Prescription Drug, Improvement, and Modernization Act of 2003, 42 U.S.C. § 1395kk-1(b)(3)(A)(i).

150. *Id.* § 1395kk-1(b)(1)(D)(i).

plus-award fee contracts.[151] Under a cost-plus-award fee contract, CMS now has the authority to offer a MAC a financial bonus if they provide exceptional performance above what is outlined in their statement of work.[152] This new award fee structure sought to provide a financial motivation for quality administration and to replace the incentive to cut corners and pursue profit through other mechanisms.[153]

These substantial programmatic changes can be seen as delivering on the government's desire to better "select, organize, and supervise" its contractors.[154] Rather than managing fifty contractors, CMS now only manages eight.[155] Today, there are eight unique MAC contractors who hold contracts across twelve A/B and four durable medical equipment (DME) geographic regions.[156] All of the current MACs are health insurance subsidiaries, meaning they exist solely or in part to process Medicare claims.[157] Most of the current MACs are subsidiaries of the most powerful health insurers in the country.[158] While there is some

151. 48 C.F.R. § 16.405-2 (2022). "CMS and each MAC negotiate the dollar amount allocated for the MAC's award fee pool—the amount of the potential award fee." They may receive this in whole or in part. Beginning in July 2009, CMS began to structure award fee plans so that MACs "must receive a CPARS rating of satisfactory or higher in all areas of their statement of work to be eligible to earn any award fee." OFF. OF INSPECTOR GEN., DEP'T OF HEALTH & HUM. SERVS., OEI-03-11-00740, MEDICARE ADMINISTRATIVE CONTRACTORS' PERFORMANCE 4–5 (Jan. 2014).

152. *Award Fee Average MAC Earned Overall*, CMS.GOV (Dec. 1, 2021, 8:00 PM), https://www.cms.gov/Medicare/Medicare-Contracting/Medicare-Administrative-Contractors/Award-Fee-Average-MAC-Earned-Overall- [https://perma.cc/L8EH-YZJJ].

153. *Id.*

154. *Hearing*, *supra* note 107, at 13.

155. *Who Are the MACs*, CMS.GOV (Dec. 1, 2021), https://www.cms.gov/Medicare/Medicare-Contracting/Medicare-Administrative-Contractors/Who-are-the-MACs [https://perma.cc/X24Y-QU3Q].

156. *Id.* A resident of Illinois, for example, belongs to Jurisdiction 6, covering Illinois, Wisconsin, and Minnesota. *MEDICARE ADMINISTRATIVE CONTRACTORS* (MACs) AS OF JUNE 2019 1 (2019), https://www.cms.gov/Medicare/Medicare-Contracting/Medicare-Administrative-Contractors/Downloads/MACs-by-State-June-2019.pdf [https://perma.cc/5NQW-VVXU].

157. *See* MEDICARE ADMINISTRATIVE CONTRACTORS, *supra* note 156 (listing the current MACs: Noridian, National Government Services, Palmetto GBA, Novitas, CGS, WPS, FSCO, and JF); *see also* Ted Doolittle, *Want to Expand Medicare? You'll Need to Hire the Insurance Companies, Not Fire Them*, THE HILL (Oct. 19, 2020), https://thehill.com/opinion/healthcare/466576-want-to-expand-medicare-youll-need-to-hire-the-insurance-companies-not [https://perma.cc/3H8N-XW9H].

158. National Government Services (NGS), for example, employs just 2,000 people. NGS, however, is not an independent company; NGS is a subsidiary of Anthem—the second largest health insurance company by membership, and third largest by revenue. This structure is not unique to NGS. Palmetto GBA employs about 2,500 people and exists solely to provide "technical and administrative services for the federal government." Palmetto is owned by Celerian Group, which is a subsidiary of Blue Cross. Blue Cross has retained their strong contracting status through the transition from FIs to MACs. For example, Novitas is owned by Blue Cross of Florida, CGS

evidence that the drafters tried to avoid such concentration,[159] this structure has allowed CMS to lead a more stable public-private partnership.

The new MAC structure has prioritized transparency between the private contractors and CMS. As a requirement for participation, MACs must collect and submit yearly encounter data to CMS for public disclosure.[160] And under Section 509 of the MMA, MAC contracts now require greater contractor performance transparency across eighty metrics.[161] These new safeguards allow CMS to better supervise and measure the effectiveness of their MACs.

In addition, to course correct from learned experience, there has been an increased focus on goal alignment between CMS and the MACs. Specifically, CMS and MAC executives meet annually to discuss process improvements, and working groups have been created for MAC collaboration.[162] CMS has also strived to see all of the MACs as a collective private partner, rather than individual private insurers with their own bottom lines.[163] In this vein, the MACs have all participated in working groups with CMS to share best practices.[164] And CMS has made efforts to incorporate innovations from one MAC into other MAC's statement of work.[165] In other words, when one MAC raises the bar of

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is owned by Celerian Group, and Noridian owns Blue Cross of North Dakota. Doolittle, *supra* note 157; David Brailer, *The Myth of Medicare for All—Why CEOs Should Fight to Preserve Health Care's Public-Private Partnership*, HEALTH EVOLUTION (Mar. 2, 2020), https://www.healthevolution.com/insider/the-myth-of-medicare-for-all-why-ceos-should-fight-to-preserve-health-cares-public-private-partnership/ [https://perma.cc/L2JE-DQ4Y]. *See generally* Sterling Price, *Largest Health Insurance Companies of 2021*, VALUE PENGUIN (Dec. 20, 2020), https://www.valuepenguin.com/largest-health-insurance-companies [https://perma.cc/ NZU9-H2HX] (indicating the market share percentages of the largest health insurance companies).

159. The reform implemented caps on the number of MAC contracts that a single health insurer can hold. A single MAC cannot control more than twenty-six percent of the entire Medicare A/B workload, and affiliated MACs cannot together account for more than forty percent of the country's A/B workload. This decision was made by CMS with an eye towards mitigating risk exposure of having too great a reliance on any single MAC contract. FACT SHEET: CMS' PLANS FOR THE A/B MEDICARE ADMINISTRATIVE CONTRACTOR (MAC) ROUND II PROCUREMENTS 2–3, https://www.cms.gov/Medicare/Medicare-Contracting/Medicare-Administrative-Contractors/Downloads/CycleOne-CycleTwo/Round2ProcurementsBackgroundSheet.pdf [https://perma.cc/5G42-H563]; U.S. GOV'T ACCOUNTABILITY OFF., B-415700, DECISION: MATTER OF NATIONAL GOVERNMENT SERVICES 2 (2018), https://www.gao.gov/assets/b-415700.pdf [https://perma.cc/4Z5W-U6SC].

160. *MAC Performance Compliance*, CMS.GOV (Sept. 29, 2021), https://www.cms.gov/Medicare/Medicare-Contracting/Medicare-Administrative-Contractors/MACPerformance Compliance [https://perma.cc/JDE8-AN6M].

161. *Id.*

162. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 110, at 19.

163. *Id.* at 18–20.

164. *Id.* at 19.

165. *Id.*

performance, the same is expected of the others. The public-private partnership is far from perfect, but it is now stable. Part III will examine continued vulnerabilities and propose recommendations aimed at further incentive alignment between CMS and the private contractors.

B. *Medicare Advantage: The Open Competition Model*

Many policymakers support Medicare Advantage, viewing it as a "private" counterpart to Original Medicare.[166] Over the years, it has developed in popularity under "the premise that the private sector can compete with Medicare in providing health care to seniors."[167] Today, beneficiaries who choose to enroll in a Medicare Advantage plan receive their Part A and B benefits directly through private insurers who compete with each other in defined geographic regions,[168] compared to Original Medicare—where the benefits are offered by the government directly.[169] Many Medicare Advantage plans also offer bundled Part D coverage.[170]

To best assess the program's privatization, Medicare Advantage should be understood not as merely the "private" form of Medicare, but rather, as a form of open competition privatization. In this model, private companies are granted rights by the government to provide goods and services in specified geographic regions.[171] Open competition privatization involves a high degree of delegated control and responsibility placed in the hands of private contractors with minimal government oversight.[172] Under this model, privatization is supposed to

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166. Jeff Lagasse, *Medicare Advantage Receiving Bipartisan Support in House of Representatives*, HEALTHCARE FIN. (Jan 31, 2022), https://www.healthcarefinancenews.com/news/medicare-advantage-receiving-bipartisan-support-house-representatives [https://perma.cc/QHJ5-P94V].

167. Travis Broome & Farzad Mostashari, *Spurring Provider Entry into Medicare Advantage*, HEALTH AFFS. (July 6, 2017), https://www.healthaffairs.org/do/10.1377/hblog20170706.060925/full/ [https://perma.cc/RKS6-W2UG].

168. Robert A. Berenson et al., *Can Insurance Market Competition Coexist with Provider Price Regulation? Evidence from Medicare Advantage*, 56 INQUIRY 1, 1 (2019).

169. *How Original Medicare Works*, MEDICARE.GOV, https://www.medicare.gov/what-medicare-covers/your-medicare-coverage-choices/how-original-medicare-works [https://perma.cc/J84L-W8NF] (last visited Oct. 12, 2022).

170. *How Do Medicare Advantage Plans Work?*, *supra* note 8.

171. *See* Richard C. Brooks, *Privatization of Government Services: An Overview and Review of the Literature*, 16 J. PUB. BUDGETING, ACCT. & FIN. MGMT. 467, 472 (2004) (describing this model of privatization as "open competition whereby many private firms are allowed to compete for customers within a government's jurisdiction"); *see also, e.g.*, U.S. GOV'T ACCOUNTABILITY OFF., GAO-20-104, DOD UTILITIES PRIVATIZATION 1 (2020) ("Utilities privatization is the process of transferring ownership and operations of utility systems from the government to a private or public entity.").

172. *See* U.S. GOV'T ACCOUNTABILITY. OFF., GAO/GGD-97-48, PRIVATIZATION: LESSONS LEARNED BY STATE AND LOCAL GOVERNMENTS 16 (1997) ("[M]onitoring and oversight that not

spur competition by allowing private companies to compete for customers in these regions.[173] Similar to public-private partnerships, this model's design has two distinct characteristics that affect its accountability to the public.

First, the private contractor moves from passenger to driver. With greater delegation in the hands of the private contractor, there is limited transparency, less ability for the government to monitor program quality, and greater likelihood that the power of the private contractor will amass over time. With amassed power, private contractors are free to redefine their role and have little direct accountability to the government once they are granted rights to operate. This may cause misaligned goals between the government and private contractor, leading to wasteful spending.

Second, competition is not guaranteed. Open competition privatization merely provides the *opportunity* for private sector competition. It is up to the market and the contractors themselves to spur competition. Because the government only acts as a gatekeeper, not as a manager—there is no guarantee that true competition will come to fruition. As this section seeks to highlight, Medicare Advantage has not realized its promise of true competitiveness. With limited direct oversight by the government, the program has been minimally transparent and vulnerable to divergence between CMS and the private insurers it contracts with.[174]

Medicare Advantage's open competition model was driven by policymakers' desire to bring greater choice, competition, and innovation into the Medicare marketplace.[175] A memorandum from the

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only evaluates compliance with the terms of the privatization agreement but also evaluates a private firm's performance in delivering services is needed when a government's direct role in the delivery of services is reduced through privatization.").

173. *See* ILL. COMM'N ON GOV'T FORECASTING & ACCOUNTABILITY, GOVERNMENT PRIVATIZATION: HISTORY, EXAMPLES, AND ISSUES 3 (2006) ("Open competition is similar to pure competition as many private firms are allowed to compete for customers within a governmental jurisdiction.").

174. *See* U.S. GOV'T ACCOUNTABILITY OFF., GAO-22-106026, MEDICARE ADVANTAGE: CONTINUED MONITORING AND IMPLEMENTING GAO RECOMMENDATIONS COULD IMPROVE OVERSIGHT 2 (2022) ("Due to our concerns about the program's susceptibility to mismanagement and improper payments as well as its size and complexity, we have designated Medicare, including Medicare Advantage, as a high-risk program. We . . . have identified significant concerns with CMS's oversight of the MA program. As a part of our work, we have made a number of recommendations to prompt CMS action to improve MA monitoring and oversight.").

175. AMANDA STARC, WHO BENEFITS FROM MEDICARE ADVANTAGE 2 (2014). Managed care can be understood as an umbrella term to describe the blending of health care financing and delivery. When you enroll in a managed care plan, your insurance company not only pays for your care, but they take a stronger role in deciding where and when you can access services. Often, many services require prior authorization. There are many models of managed care including Health Maintenance Organization (HMOs), Preferred Provider Organizations (PPOs), and Point

Congressional Budget Office noted that "[o]ne of the motivations" for Medicare Advantage was "the desire to give Medicare beneficiaries the same variety of insurance options now available in the private sector."[176] It was imagined as an "alternative" to Original Medicare that would give beneficiaries a wider range of health plan choices through which to obtain their Medicare benefits.[177] A broad range of choices was supposed to correspondingly reduce spending as consumers sought out the best plans.[178] Between 1966 and 1997, policymakers experimented with unique forms of managed care models[179] before Medicare Advantage was officially codified into law through Section 4001 of the Balanced Budget Act (BBA) of 1997. Over the next few years, enrollment levels were low due to "[u]nstable offerings, reduced benefits and higher premiums."[180]

But in 2003, the MMA reforms significantly reformed the contracting process of Medicare Advantage, just as it did for Original Medicare.[181] Most notably, it expanded the scope of the program into the nationwide, regional-based program that exists today.[182] The reforms created twenty-six Medicare Advantage regions spanning states and clusters of states.[183] Finally, the reforms paved the way for Medicare Advantage providers to become the drivers of the program for the years ahead. The MMA imagined a minimal role for CMS: certifier and auditor.[184]

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of Service (POS) Organizations. Joseph Heaton & Prasanna Tadi, *Managed Care Organization*, NAT'L LIBR. OF MED. (2021), https://www.ncbi.nlm.nih.gov/books/NBK557797/#article-34791.s1 [https://perma.cc/MB4C-YQXC].

176. Memorandum from Sandy Christensen, Cong. Budget Off., to Interested Parties 16 (Nov. 12, 1997).

177. *See id.* ("[E]nrollees will have more alternatives to the original fee-for-service program . . . enrollees will have more kinds of plans from which to choose, so that they will be more likely to find one that suits them.").

178. Robert A. Berenson, *When Competition Is Not Competition: The Curious Case of Medicare Advantage*, 11 ST. LOUIS U. HEALTH L. & POL'Y 141, 144 (2017).

179. YASH M. PATEL & STUART GUTERMAN, THE COMMONWEALTH FUND, THE EVOLUTION OF PRIVATE PLANS IN MEDICARE 2 (Dec. 2017), https://www.commonwealthfund.org/sites/default/files/documents/___media_files_publications_issue_brief_2017_dec_patel_evolution_private_plans_medicare_managed_care_ib.pdf [https://perma.cc/TBR9-C96M].

180. MARSHA GOLD & LINDSAY HARRIS, MATHEMATICA POL'Y RSCH., KAISER FAM. FOUND., THE MEDICARE RX DRUG LAW: PROFILE AND ANALYSIS OF THE 26 MEDICARE ADVANTAGE REGIONS i (Mar. 2005).

181. *Id.*

182. *Id.*

183. *Id.*

184. *See How Do Medicare Advantage Plans Work?*, *supra* note 8 ("Medicare Advantage Plans . . . are offered by Medicare-approved private companies that must follow rules set by Medicare. If you join a Medicare Advantage Plan . . . you'll get most of your Part A and Part B coverage from your Medicare Advantage Plan, not Original Medicare.").

As a certifier, CMS determines which private insurers can become Medicare Advantage providers.[185] An interested private insurer must submit an application that attests they will (1) provide all of the Part A and B services that Original Medicare covers and (2) provide additional services they list in their benefits contract.[186] As an auditor, CMS has the authority to audit Medicare Advantage providers to ensure they are compliant and submitting accurate diagnosis codes to the government.[187]

Once an application has been approved by Medicare, the private insurer takes the keys from CMS. They become the driver of the program; Medicare Advantage providers become responsible for the entire administration of the plan.[188] They must take over claims processing from the MACs and create their own provider contracts.[189] They are solely responsible for advertising and attracting enrollees.[190] Beyond these two roles, there is minimal direct accountability from Medicare Advantage providers to the government.[191] This hands-off, highly-privatized model has given rise to several negative externalities over the past years.[192]

First, competition has been minimal. In 2003, there were an estimated 146 Medicare Advantage plans offered across the country.[193] This number has risen to an estimated 3,843 plans in 2022.[194] With so many

185. *See generally* DEP'T OF HEALTH & HUM. SERVS., PART C – MEDICARE ADVANTAGE AND 1876 COST PLAN EXPANSION APPLICATION 4–16 (2022), https://www.cms.gov/files/document/cy-2023-medicare-advantage-part-c-application.pdf [https://perma.cc/642L-AL56] (providing requirements and resources for submission of MA applications).

186. *Id.* at 25.

187. *Cf.* Thomas Sullivan, *OIG Continues to Audit Medicare Advantage*, POL'Y MED. (June 13, 2021), https://www.policymed.com/2021/06/oig-continues-to-audit-medicare-advantage-plans.html [https://perma.cc/2R22-EFMG] (describing an investigation carried out by the Office of the Inspector General (OIG) for the HHS, in which the OIG used investigative techniques similar to historic auditing procedures utilized by CMS).

188. Travis Broome & Farzad Mostashari, *Spurring Provider Entry into Medicare Advantange*, HEALTH AFFS. (July 6, 2017), https://www.healthaffairs.org/do/10.1377/hblog20170706.060925/full/ [https://perma.cc/5Q8L-JJHE].

189. *Id.*

190. *Id.*

191. *Id.*

192. *See* Fred Schulte, *Medicare Advantage's Cost to Taxpayers Has Soared in Recent Years, Research Finds*, NPR (Nov. 11, 2021, 5:00 AM), https://www.npr.org/sections/health-shots/2021/11/11/1054281885/medicare-advantage-overcharges-exploding [https://perma.cc/GC3J-PFKZ] ("Medicare Advantage billing data estimates that Medicare overpaid the private health plans by more than $106 billion from 2010 through 2019 because of the way the private plans charge for sicker patients.").

193. Alice M. Rivlin & Willem Daniel, *Could Improving Choice and Competition in Medicare Advantage Be the Future of Medicare?*, 18 FORUM FOR HEALTH ECON. & POL'Y 151, 153 (2015).

194. *A Record 3,834 Medicare Advantage Plans Will Be Available in 2022, Up 8 Percent From 2021, While the Number of Medicare Part D Stand-Alone Plans Is Decreasing Mainly Due*

approved plans, one might expect that competition should have similarly increased in each region. Instead, between 2009 and 2017, up to seventy percent of Medicare Advantage enrollees were in highly-concentrated markets with only two or three insurers.[195] Up to 147 counties, mostly rural, have no Medicare Advantage provider at all.[196] This limited competition is worrisome. Medicare Advantage's payment system relies on competition between insurers to drive premiums down toward actual costs.[197] Without competition, there is fear that enrollees are overpaying.[198]

Limited competition has also been accompanied by limited data on plan information and limited quality measurement. With limited oversight, Medicare Advantage providers are free to design their websites as they see fit. Many websites are not easily accessible for potential enrollees and fail to include vital information, such as which physicians accept the plan.[199] In general, provider directories must be complete,

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to Firm Consolidations, KFF (Nov. 2, 2021), https://www.kff.org/medicare/press-release/a-record-3834-medicare-advantage-plans-will-be-available-in-2022-up-8-percent-from-2021-while-the-number-of-medicare-part-d-stand-alone-plans-is-decreasing-mainly-due-to-firm-consolidations/ [https://perma.cc/N85D-K5MB].

195. RICHARD G. FRANK & THOMAS G. MCGUIRE, THE COMMONWEALTH FUND, MARKET CONCENTRATION AND POTENTIAL COMPETITION IN MEDICARE ADVANTAGE 1 (Feb. 2019), https://www.commonwealthfund.org/sites/default/files/2019-02/Frank_market_concentration_medicare_advantage_ib_0.pdf [https://perma.cc/4HGE-3N98].

196. Gretchen Jacobson & Tricia Neuman, *Some Counties May Lack an ACA Marketplace Insurer Next Year – But Many More Lack Medicare Advantage Plans Today*, KFF (Aug. 1, 2017), https://www.kff.org/medicare/issue-brief/some-counties-may-lack-an-aca-marketplace-insurer-next-year-but-many-more-lack-medicare-advantage-plans-today/ [https://perma.cc/HHP5-587C].

197. Richard J. Frank & Thomas M. McGuire, *Regulated Medicare Advantage and Marketplace Individual Health Insurance Markets Rely on Insurer Competition*, 36 HEALTH AFFS. 1578, 1580 (Sept. 2017) ("Markets with more insurance carriers have lower premiums.").

198. *Id.*

199. *See* Trudy Lieberman, *Shopping for Medicare Advantage Plans Is a Maze of Confusion for Seniors*, CTR. FOR HEALTH JOURNALISM (Nov. 23, 2021), https://centerforhealthjournalism.org/2021/11/22/shopping-medicare-advantage-plans-maze-confusion-seniors [https://perma.cc/3BXJ-VANG] ("[T]he websites of the State Health Insurance Assistance Program (SHIP), set up in each state by the federal government to help seniors choose Medicare plans, did not offer the necessary caveats for choosing Medigap and Advantage plans, 'which a discerning consumer would like to know.'"); *see also* Bernard J. Wolfson, *Health Insurance Provider Directories Are Required by Law, But They Often Have Errors*, CHI. SUN TIMES (July 29, 2022, 3:00 PM), https://chicago.suntimes.com/consumer-affairs/2022/7/29/23279223/consumer-health-insurance-provider-directories-guide-inaccuracies [https://perma.cc/7ZF6-DTWA] ("If you have medical insurance, chances are you've become exasperated at some point trying to find an available doctor or mental health practitioner in your health plan's network. You find multiple providers in your plan's directory, and you call them. All of them. But the number is wrong. Or the doctor has moved or retired or isn't accepting new patients. Or the next available appointment is three months away. Or the provider isn't actually in your network.").

accurate, and updated annually.[200] However, despite such a requirement, Medicare Advantage providers have not always followed this requirement, and it has been hard to police.[201] One study in the American Journal of Managed Care found that Google has more up-to-date information on provider networks than some Medicare Advantage provider directories.[202] CMS has also reported that up to fifty-two percent of Medicare Advantage provider directories had at least one major inaccuracy, such as an incorrect phone number or address.[203] Without such information, plans cannot be accountable to their enrollees. Enrollees might not be able to reach a doctor when an urgent situation arises or to reach a representative to dispute a charge, should they be overbilled.[204]

Transparent quality measurement itself has also been minimal in Medicare Advantage. Medicare Advantage providers typically do not have to release comprehensive claims data and encounter-level data to the public.[205] Medicare Advantage organizations are only required to submit "bids," which are estimates of coverage costs used to calculate payment rates and risk scores for enrollees to CMS.[206] With no requirement to release quality data, Medicare Advantage providers have no incentive to release data if it is less-than-stellar. Yet without this data, enrollees and policymakers have had difficulty determining how well the program is performing.[207] Lack of public data has provided a major roadblock to measuring the program's effectiveness, and how well it is performing on quality-of-care metrics.[208]

Finally, CMS's audits have revealed a further negative side effect of delegating so much authority to private contractors: vulnerability to fraud and abuse.[209] Upcoding, the process of submitting more expensive

200. *See* 42 C.F.R. § 422.111(a)(1)–(3) (2023) (specifying that an MAO must disclose certain information to "each enrollee electing an MA plan it offers" in a manner that is "clear, accurate, and standardized" at "the time of enrollment and at least annually thereafter, by the first day of the annual coordinated election period").

201. *See* Wolfson, *supra* note 199 ("Despite state and federal regulations that require more accurate health plan directories, they still can contain errors and often are outdated.").

202. Michael Adelberg et al., *Improving Provider Directory Accuracy: Can Machine-Readable Directories Help?*, 25 AM. J. MANAGED CARE 241, 243 (2019).

203. CTRS. FOR MEDICARE & MEDICAID SERVS., ONLINE PROVIDER DIRECTORY REVIEW REPORT 1 (2018).

204. Wolfson, *supra* note 199.

205. Niall Brennan et al., *Time to Release Medicare Advantage Claims Data*, 319 JAMA 975, 975 (2018).

206. *Id.*

207. *Id.*

208. *Id.*

209. *Id.*; Reed Abelson & Margot Sanger-Katz, *"The Cash Monster Was Insatiable": How Insurers Exploited Medicare for Billions*, N.Y. TIMES (Oct. 8, 2022), https://www.nytimes.com/2022/10/08/upshot/medicare-advantage-fraud-allegations.html [https://perma.cc/K623-FSPG].

diagnoses or procedures to CMS than were actually performed by a physician, has been rampant.[210] The open competition structure of privatization has allowed for upcoding because of the unaligned goals between Medicare Advantage providers and CMS.[211] CMS desires participation in the program, and they pay beneficiaries for each expected cost.[212] On the other hand, Medicare Advantage providers are paying for this care, so they are incentivized to make it appear that enrollees are sicker than normal and have high expected costs.[213] Once they secure the funds, they may be incentivized to provide as little care as possible to boost profits. Upcoding is not a minor problem.[214] Some reports estimate that up to 9.5 percent of payments from CMS to Medicare Advantage providers are improper due to unsupported diagnoses submitted by Medicare Advantage organizations.[215] Others estimate that Medicare Advantage plans overcharged Medicare by thirty billion dollars between 2013 and 2016.[216] One recent investigation found that thirty-five out of thirty-seven audited Medicare Advantage plans had upcoded for certain diseases.[217] Auditors confirmed that sixty percent of the "more than 20,000 medical conditions plans were paid to treat."[218] According to *The New York Times*, "[e]ight of the 10 biggest Medicare Advantage insurers—representing more than two-thirds of the market—have submitted inflated bills . . . . And four of the five largest players . . . have faced federal lawsuits alleging that efforts to overdiagnose their customers crossed the line into fraud."[219]

CMS's role as auditor has brought this fraud to light. But audits should not be confused with oversight. Oversight, as the public-private partnership of Original Medicare demonstrates, requires continual responsiveness on the part of the private partners as a term of participation. Auditing is a more limited way to identify goal divergence, and because of their random nature, audits are likely to only identify some

210. Brennan et al., *supra* note 205; Fred Schulte, *Medicare Advantage Audits Reveal Pervasive Overcharges*, CTR. FOR PUB. INTEGRITY (Aug. 29, 2016), https://publicintegrity.org/health/medicare-advantage-audits-reveal-pervasive-overcharges/ [https://perma.cc/BN7P-Z7NE].

211. Brennan et al., *supra* note 205; Abelson & Sanger-Katz, *supra* note 209; Schulte, *supra* note 210.

212. Brennan et al., *supra* note 205; Abelson & Sanger-Katz, *supra* note 209.

213. Brennan et al., *supra* note 205; Abelson & Sanger-Katz, *supra* note 209.

214. *See* Schulte, *supra* note 210 ("[F]ederal officials have struggled to stamp out inflated coding.").

215. *Id.*

216. Fred Schulte & Lauren Weber, *Medicare Advantage Plans Overbill Taxpayers by Billions Annually, Records Show*, NPR (July 16, 2019, 5:00 AM), https://www.npr.org/sections/health-shots/2019/07/16/740964958/records-show-medicare-advantage-plans-overbill-taxpayers-by-billions-annually [https://perma.cc/RCU9-VPJB].

217. Schulte, *supra* note 210.

218. *Id.*

219. Abelson & Sanger-Katz, *supra* note 209.

instances of fraud and abuse. As Medicare currently exists, without reform to the contracting structure of Medicare Advantage, the government is stuck taking a reactionary posture.

Despite these substantial problems, the appeal of Medicare Advantage is still rising.[220] Medicare Advantage providers have been able to steer the narrative to a focus on their perceived benefits. Proponents point to the perceived "advantage" of the plans. First, they highlight that many have access to a Medicare Advantage plan that covers dental, fitness, vision, and hearing benefits—which are not always covered by traditional Medicare.[221] Proponents also highlight that, unlike Original Medicare, Medicare Advantage has out-of-pocket spending caps for physician and hospital services (Medicare Part A and B benefits).[222] A final major benefit is that generally, enrollees do not need to submit claims unless a service is used outside of their network.[223] Unfortunately, these "advantages" have overshadowed the program's governance problems, to the detriment of beneficiary care and federal dollars.

III. RECOMMENDATIONS FOR THE PATH FORWARD: IMPROVE ORIGINAL MEDICARE

Medicare faces a more privatized future ahead if the status quo remains unchanged. As Part II illuminated, both models of privatization have exposed weaknesses and cracks in their design. But Medicare Advantage far surpasses Original Medicare both in the degree of privatization, weaknesses of the structure, and surprisingly, public appeal. Medicare Advantage's open competition model continues to draw more supporters in Congress and in enrollees alike,[224] despite misaligned incentives and limited transparency.

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220. *See id.* ("If trends hold, by next year, more than half of Medicare recipients will be in a private plan.").

221. Meredith Freed et al., *Dental, Hearing, and Vision Costs and Coverage Among Medicare Beneficiaries in Traditional Medicare and Medicare Advantage*, KFF (Sept. 21, 2021), https://www.kff.org/health-costs/issue-brief/dental-hearing-and-vision-costs-and-coverage-among-medicare-beneficiaries-in-traditional-medicare-and-medicare-advantage/ [https://perma.cc/PNL3-M5GK].

222. Meredith Freed et al., *Medicare Advantage in 2022: Premiums, Out-of-Pocket Limits, Cost Sharing, Supplemental Benefits, Prior Authorization, and Star Ratings*, KFF (Aug. 25, 2022), https://www.kff.org/medicare/issue-brief/medicare-advantage-in-2022-premiums-out-of-pocket-limits-cost-sharing-supplemental-benefits-prior-authorization-and-star-ratings/#:~:text=Since%202011%2C%20federal%20regulation%20has,%2Dof%2Dnetwork%20services%20combined [https://perma.cc/S5RM-Z8TN].

223. Jason Baum, *When and How to File a Medicare Claim*, EHEALTH (July 14, 2022), https://www.ehealthinsurance.com/medicare/cost/when-and-how-to-file-a-medicare-claim/#:~:text=If%20you%20get%20your%20Medicare,with%20a%20set%20monthly%20amount [https://perma.cc/YAD4-E5FL].

224. Abelson & Sanger-Katz, *supra* note 209; Robert King, *Most of Congress Warns CMS*

The answer to these vulnerabilities should not be to privatize further. Greater oversight and accountability will only go so far to substantially improve a model that relies on the market and competition to drive down costs and deliver quality care. Much has already been written on how to better manage Medicare Advantage providers with minimal corresponding change.

Less attention has been paid to improving the role for private insurers in Original Medicare. Discussion of MACs has been largely absent from policy conversations focused on the future of Medicare. Not once during the 2020 presidential debates, where health care took center stage, was the word MAC uttered or the public-private nature of Original Medicare discussed.[225] Even Bernie Sanders, who has been an outspoken advocate of Medicare for All, has been vague on the specific role that MACs would play under an even more public structure, and whether he believes they have done a good job administering the program for the last fifteen years.[226] As Part II highlighted, the transition to the MAC structure was a major step forward for the program, but weaknesses remain. To improve public accountability, continuing to perfect this model should be a priority of Congress in the years ahead.

Improving Original Medicare's public-private partnership will also prove to privatization advocates that private insurers can play a productive role in a public Medicare program. It will show by example that privatization does not require free-market competition and a regressive government role to be effective. It is true that the model of Original Medicare imagines a less robust role for private insurers.[227] But it imagines a role, nonetheless.[228] Finding the right role should be the highest priority for Medicare's longevity. In addition, by demonstrating the productive role that private insurers can play in Original Medicare, a Medicare for All future could be more likely to carve out a larger role for private insurers.

Against Any Medicare Advantage Cuts, Calls for Benefit Flexibility, FIERCE HEALTHCARE (Feb. 22, 2022, 4:00 PM), https://www.fiercehealthcare.com/payers/most-congress-warns-cms-against-any-medicare-advantage-cuts-calls-benefit-flexibility [https://perma.cc/3ZUQ-G749].

225. Paige Winnfield Cunningham, *The Health 202: Health Care Was First Up in Last Night's Caustic Presidential Debate*, WASH. POST (Sept. 9, 2020), https://www.washingtonpost.com/politics/2020/09/30/health-202-health-care-was-first-up-last-night-caustic-presidential-debate/ [https://perma.cc/2S65-6BS4].

226. *See* Edward M. Murphy, *The Reality of Medicare for All is Not What You Think*, COMMONWEALTH (Sept. 7, 2019), https://commonwealthmagazine.org/health-care/the-reality-of-medicare-for-all-is-not-what-you-think/ [https://perma.cc/2N7A-VCAF] ("The proposed statutory language is unclear about eliminating the insurers who now administer the convention program as regional Medicare Administrative Contractors . . . . The proposed law is silent on the day to day administration of the new service beyond establishing that enrollees 'are entitled to have payment made by the Secretary' of the US Department of Health and Human Services.").

227. *Id.*

228. *Id.*

Because transparency is already a requirement for MAC contracts with CMS, future improvements to the program's design should focus on mitigating misaligned incentives that have not yet been addressed. This process can be done through greater performance coordination among MACs and through contract extensions.

A. *Suggested Improvement Number One: Improve MAC Coordination Through Extended Contracts*

As Part I highlighted, models of privatization should ensure a high degree of coordination between public and private sector contractors, and between private sector contractors themselves, to mitigate any competitive advantages that get in the way of program equity for enrollees. Coordination seeks to mitigate misaligned incentives by keeping private contractors narrowly focused on the government's bottom line and the promotion of public values. By working more directly with each other, each party will be more likely to view each other as symbiotic partners delivering a public good.

As Part II identified, in recent years, CMS has identified instances of MACs failing to share certain innovations or operational improvements with other MACs to protect their own competitive advantage.[229] So far, CMS has convened working groups between MAC executives and CMS officials. CMS has made a point to share operational improvements and innovations between the MACs.[230] These coordination efforts are a positive step forward, but they will not meaningfully change the status quo in an environment where MACs are competing with each other every five years for new contracts.

In 2015, the Government Accountability Office (GAO) recommended that CMS extend contract lengths to better incentivize coordination between MACs and CMS and to allow MACs more time to implement process improvements.[231] Heeding the advice of the GAO, the Medicare Access and CHIP Reauthorization Act increased the maximum MAC contract award length to ten years.[232] Yet despite this change, new MAC contract awards have not been extended to ten years; the two most recent MAC contract awards were for seven years.[233] To improve coordination

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229. *See supra* Part II.

230. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 110, at 19; *see supra* Part II.

231. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 110, at 21.

232. Medicare Access and CHIP Reauthorization Act of 2015, Pub. L. No. 114-10, § 509(a)–(b), 129 Stat. 87, 170 (2015).

233. *See* AWARD OF MEDICARE ADMINISTRATIVE CONTRACTOR (MAC) CONTRACT FOR JURISDICTION K 2, https://www.cms.gov/files/document/jk-award-fact-sheetdecember-2021.pdf [https://perma.cc/C2XQ-GZEZ] (last visited Jan. 27, 2023) (describing the contract length of Jurisdiction K, awarded to National Government Services on December 15, 2021); *see also*

between MACs, future MAC awards should be extended to the ten-year maximum. A ten-year period will more effectively allow MACs and CMS to develop long-term coordination plans and view their relationship as permanent, rather than temporary. If operational efficiency and coordination improves over the next several years with such a change, CMS should consider advocating for legislation that would further increase MAC contract length.

B. *Suggested Improvement Number Two: Mitigate Instances of Fraud and Abuse Through Stricter Reporting Requirements*

Part II highlighted that incidences of fraud and abuse are far lower in Original Medicare than Medicare Advantage. This has been due in part to greater oversight by CMS and the requirement that MACs have to prevent and curb improper billing.[234]

Once they are awarded a contract, a MAC is required to create provider education and medical review departments.[235] Together, these departments are supposed to work together in educational efforts to prevent and curb improper provider billing.[236] Despite these stated goals of coordination, a 2017 GAO Report found minimal evidence of efforts to curb improper billing through both of these departments.[237]

In part, this has persisted because MACs do not have enough incentive to report instances of fraud and abuse. In many instances, reporting is optional.[238] The CMS Provider Customer Service Program Manual specifies that only MACs with improper payment rates above a certain threshold are required to submit quarterly or monthly provider education department status updates.[239] CMS officials have admitted, however, that in practice they do not require these reports and are considering removing this expectation from the manual.[240] As a direct result of this, CMS remains in the dark as to the extent that MACs are actually working to reduce improper billing.

AWARD OF MEDICARE ADMINISTRATIVE CONTRACTOR (MAC) CONTRACT FOR JURISDICTION JL 2, https://www.cms.gov/files/document/jl-award-fact-sheetjuly-2021.pdf [https://perma.cc/2Q6F-4FZ7] (last visited Jan. 27, 2023) (describing the contract length of Jurisdiction L, awarded to Novitas Solutions on July 27, 2021).

234. *See supra* Part II.

235. U.S. GOV'T ACCOUNTABILITY OFF., GAO-17-290, MEDICARE PROVIDER EDUCATION: OVERSIGHT OF EFFORTS TO REDUCE IMPROPER BILLING NEEDS IMPROVEMENT 2 (2017).

236. *Id.*

237. *Id.* at 8.

238. MEDICARE ADMINISTRATIVE CONTRACTOR (MAC) BENEFICIARY AND PROVIDER COMMUNICATIONS MANUAL 21 (2019), https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/com109c06.pdf [https://perma.cc/Q43H-HFR4].

239. *Id.*

240. U.S. GOV'T ACCOUNTABILITY OFF., *supra* note 235, at 8.

The issue here is one of incentives. MACs are motivated in part to prolong their contract with the government, and evidence of improper billing would jeopardize such extension. Given the option to opt-out of disclosure, it is not surprising MACs choose to withhold information. To better align the incentives of CMS and the MACs, the government should more forcefully require disclosure of improper payments. This will both improve transparency, and increase efforts by the MACs to show they are doing a good job.

This is also another area where coordination would seek to better align the incentives between the MACs and CMS. According to CMS policy, CMS staff typically visit MAC sites for in-person onsite reviews with MAC managers every two months.[241] Topics discussed can include "monthly status report[s], progress on significant and/or ongoing issues, new issues or concerns, and innovations."[242] Until the rates of improper billing decrease substantially, CMS should require MAC management personnel to provide detailed accounts of their up-to-date improper payment rates at onsite meetings and what they are doing to decrease these percentages.

CONCLUSION

The future of Medicare hinges on the choice between two distinct models of privatization. Neither model operates without private sector participation, and both models carve out a significant role for private insurers. This role has only expanded in recent years. As this Article seeks to illuminate, both models are far from perfect, but Original Medicare more effectively promotes public accountability than Medicare Advantage. Original Medicare is more transparent, and better aligns incentives between the government and private contractors to promote public values and minimize fraud and abuse. Further reform and refinement of this model should be the focus of policymakers in the years ahead if Medicare is to remain stable; otherwise, Medicare Advantage is positioned to continue to grow in popularity, fueled by the appeal of competition, choice, and perceived private sector efficiency. Are policymakers willing to abandon oversight, transparency, and stability in an illusory pursuit of these values? Are they willing to ignore how Medicare Advantage has not delivered on these important metrics? And are they happy to just hand over the keys to private insurers motivated by profit? This is an irresponsible path. Course correction now is still possible, but only if there is the political will to take back the keys.

241. OFF. OF INSPECTOR GEN., DEP'T OF HEALTH & HUM. SERVS., *supra* note 151, at 6.
242. *Id.*

BLACK CULTURE IS "PROFESSIONAL": CAUSATION AFTER *BOSTOCK* & RACIAL STEREOTYPES

Adriante Carter[*]

Abstract

Employment discrimination has progressed past the days of overt prejudices. In today's society, employment discrimination manifests as stereotypes that perpetuate negative results. Those who suffer from stereotypic discrimination have long been denied redress for these wrongs. The U.S. Supreme Court's decision in *Bostock*, this Note argues, is a way forward. This Note argues that case law has developed, and should continue to develop, in a way that recognizes racial stereotyping as discriminatory. This Note explores the history of this case law and examines how the theory of causation from *Bostock* can be used to better the jurisprudence on racial stereotyping.

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> It is not our differences that divide us. It is our inability to recognize, accept, and celebrate those differences.[1]

INTRODUCTION

Imagine Kayla, a Black woman, decides to wear locs to work. She is reprimanded by her employer for an "unprofessional appearance." Undeterred by this reprimand, Kayla continues to wear her locs to work. Kayla's employer eventually terminates her for not conforming with the reprimand she received, finding her lack of assimilation to the "professional appearance" requirement to be a detriment to the work environment.

At first glance, Kayla was fired because of the appearance of her hairstyle and not because of any of the protected categories enumerated in Title VII of the Civil Rights Act of 1964: race, color, religion, sex, and national origin.[2] Workplace grooming policies generally require that hair be groomed in a manner that is professional, businesslike, conservative, not "too excessive," "eye-catching or different," or that employees cover hairstyles that are "unconventional," and so on. These policies are neutral on their face and purport no relationship to the race of the person being disciplined for noncompliance. However, a deeper examination reveals the perverse motive of the employment action. Kayla was fired because of the stereotype that her hair, in its natural state, is unprofessional.

Kayla's decision to wear her hair in its unaltered state is inextricably tied to her race. The delicate relationship between a Black woman and her physical expression of her culture as it relates to her hair has been

1. Audre Lorde, *Age, Race, Class, and Sex: Women Redefining Difference*, *in* SISTER OUTSIDER 104, 105 (1984).

2. 42 U.S.C.A. § 2000e-2(a)(1) (West 2022).

discussed ad nauseam.[3] The language used in workplace grooming policies is often interpreted by employers to ban African American women's natural hairstyles, including protective styles, from the workplace. Grooming policies excluding Black women's neatly groomed, natural hairstyles are based on stereotypes rooted in race and gender and operate to illegally exclude them from the workplace. Such policies can lead to African American women not being hired, or being fired, simply for wearing their hair in its natural state. This is a form of racial stereotyping and should constitute a violation of Title VII. However, U.S. Supreme Court jurisprudence has so far failed to consistently recognize racial stereotypes as discrimination on the basis of race in violation of Title VII.

This Note will argue that the U.S. Supreme Court decision in *Bostock v. Clayton County*[4] should be a path for recognizing that racial stereotyping is a form of race discrimination. In *Bostock*, the definition of sex discrimination was expanded to include discrimination on the basis of sexual orientation and gender identity.[5] Importantly, the Court extrapolated a definition of "but-for" causation within Title VII that allows for multiple but-for causes to be present in the employment decision, but if a protected classification played some role in the adverse employment decision, then the employer violates Title VII.[6] This Note will argue that applying *Bostock*'s theory of causation to racial stereotyping will allow the wrongful nature of such racial discrimination to be fully understood.

Part I tracks the development of causation standards in other antidiscrimination statutes and provisions as defined by Congress and the U.S. Supreme Court through mixed motive discrimination. Part II proceeds by defining single motive discrimination and its requisite legal standard. Part III will discuss the holding of *Bostock* and the causation standard that the majority opinion extrapolated for status-based discrimination claims brought under Title VII. Part IV attempts to define racial stereotyping through social science and jurisprudence—placing it in the context of *Bostock*—and explains how the *Bostock* causation standard can assist courts in examining racial stereotyping cases. This Note concludes by emphasizing the necessity of developing racial stereotype jurisprudence as a clear form of actionable discrimination.

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3. Dawn D. Bennett-Alexander & Linda F. Harrison, *My Hair Is Not Like Yours: Workplace Hair Grooming Policies for African American Women as Racial Stereotyping in Violation of Title VII*, 22 CARDOZO J.L. & GENDER 437, 438–48 (2016); D. Wendy Greene, *Title VII: What's Hair (and Other Race-Based Characteristics) Got to Do with It?*, 79 U. COLO. L. REV. 1355, 1385–89 (2008).

4. 140 S. Ct. 1731, 1731 (2020).

5. *Id.* at 1738.

6. *Id.* at 1739–41.

I. DEFINING "BECAUSE OF": CAUSATION IN ANTIDISCRIMINATION CASES BEFORE *BOSTOCK*

Part I explores how the U.S. Supreme Court and Congress have defined the phrase "because of" in various discrimination statutes over time. Part I highlights the Court's inconsistency in applying the requirements for causation in discrimination cases. In some instances, a plaintiff must prove their protected classification was *the* reason for the employment or discriminatory decision; in other contexts, the protected classification must only have been a motivating factor. The Court has offered various reasons for its various approaches to different types of discrimination cases, but none of these reasons, this Note argues, are sufficient.

Section A discusses motivating factor causation and *Price Waterhouse*. Section B explains *Gross* and the causation standard in the Age Discrimination in Employment Act of 1967. Section C explores *Nassar* and the heightened standard for causation in antiretaliation discrimination claims filed under 42 U.S.C. § 2000e-3. Finally, Section D examines the causation requirement in 42 U.S.C. § 1981 as discussed in *Comcast Corp.*

A. *Mixed Motive Discrimination and Motivating Factor Causation*

Mixed-motive discrimination occurs when an employer relies on both lawful and discriminatory motives in making an adverse employment decision. The first time the U.S. Supreme Court recognized that mixed motive discrimination was actionable under Title VII was in *Price Waterhouse v. Hopkins*.[7] In that case, Ann Hopkins sued under Title VII for sex discrimination after she was denied a promotion.[8] Although no opinion garnered a majority, six Justices agreed that a plaintiff can prevail on a claim of status-based discrimination based on mixed-motives if one of the prohibited traits is a "motivating," "substantial," or "illegitimate" factor in the employer's decision.[9] In deciding that the "because of" language in Title VII created a burden-shifting framework, the plurality explained that if the plaintiff makes a showing that a protected category is a motivating or substantial factor in the adverse employment action, the burden of persuasion shifts to the employer, who can escape liability by proving through objective evidence that "its legitimate reason, standing alone, would have induced it to make the same decision."[10]

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7. 490 U.S. 228, 244–47 (1989).

8. *Id.* at 232.

9. *Id.* at 258 (plurality opinion); *Id.* at 259 (White, J., concurring); *Id.* at 276 (O'Connor, J., concurring).

10. *Id.* at 258.

1. Congress's Response to *Price Waterhouse* and the Civil Rights Act of 1991

Two years after the Supreme Court handed down the decision in *Price Waterhouse*, Congress partly rejected the case's burden-shifting framework and lessened its causation standard.[11] The legislature added a subsection to the end of Title VII, which stated that "an unlawful employment practice is established when the complaining party demonstrates that race, color, religion, sex, or national origin was a *motivating factor* for any employment practice, even though other factors also motivated the practice."[12] It was later added that a protected classification being a motivating factor could be proven by either direct or circumstantial evidence.[13]

Title VII itself does not define what constitutes a motivating factor. The courts have attempted to define it, but only by using metaphors that are difficult to understand.[14] Legal scholars have also attempted to define the phrase. The most convincing interpretation is that "motivating factor" is best understood "as a conscious reason, something the decisionmaker(s) considered, or took into account, in coming to the challenged decision."[15] This interpretation would require plaintiffs to show that "being of a certain race, color, gender, religion or national origin was not only a reason for the challenged action, but also one of the considerations taken into account in the deliberations that preceded it."[16] Other scholars have attempted to define "motivating factor" in relation to the but-for causation requirement, claiming that doing so creates a lower standard of causation known as the concept of minimal causation.[17] This alternative interpretation would mean that impermissible factors such as race or sex have some causal influence but do not rise to the level of necessity or sufficiency.[18] Such a formulation is essentially the middle ground between a stronger form of causation (but-for) and no causation.[19]

Through the Civil Rights Act of 1991, Congress also rejected the portion of the *Price Waterhouse* framework that allowed an employer to escape liability once a plaintiff proved the existence of an impermissible

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11. Univ. of Tex. Sw. Med. Ctr. v. Nassar, 570 U.S. 338, 348–49 (2013); 42 U.S.C. § 2000e-2(m).

12. 42 U.S.C. § 2000e-2(m) (emphasis added).

13. Desert Palace, Inc. v. Costa, 539 U.S. 90, 102 (2003).

14. Costa v. Desert Palace, Inc., 299 F.3d 838, 849 (9th Cir. 2002), *aff'd*, 539 U.S. 90 (2003); Veprinsky v. Fluor Daniel, Inc., 87 F.3d 881, 893 (7th Cir. 1996).

15. Michael Starr, *The Muddle of Motivating Factor: Using the Logic of Human Action to Inform Employment Discrimination Law*, 35 HOFSTRA LAB. & EMP. L.J. 89, 130 (2017).

16. *Id.*

17. Martin J. Katz, *The Fundamental Incoherence of Title VII: Making Sense of Causation in Disparate Treatment Law*, 94 GEO. L.J. 489, 505 (2006).

18. *Id.*

19. *Id.*

motivating factor.[20] Congress found the framework to be inadequate because it allowed employers who had definitively engaged in discrimination to avoid liability in certain circumstances.[21] Under the congressional framework,

> A plaintiff could obtain declaratory relief, attorney's fees and costs, and some forms of injunctive relief based solely on proof that race, color, religion, sex, or nationality was a motivating factor in the employment action; but the employer's proof that it would still have taken the same employment action would save it from monetary damages and a reinstatement order.[22]

In amending Title VII, the Civil Rights Act of 1991 allowed an employee to satisfy a lesser burden of causation for establishing discrimination on the basis of mixed motives than exists in other discrimination statutes.[23] Plaintiffs noted this distinction and attempted to bring discrimination claims in different contexts under other antidiscrimination statutes, seeking to transplant the reasoning from both *Price Waterhouse* and the 1991 Act, but the Supreme Court was not receptive.[24]

B. *Mixed Motives and the ADEA:* Gross v. FBL Financial Services

In *Gross v. FBL Financial Services*, the Supreme Court approached the issue of "whether a plaintiff must present direct evidence of age discrimination in order to obtain a mixed-motives jury instruction in a suit brought under the Age Discrimination in Employment Act of 1967 (ADEA)."[25] The ADEA provides that "[i]t shall be unlawful for an

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20. Univ. of Tex. Sw. Med. Ctr. v. Nassar, 570 U.S. 338, 349 (2013); Gross v. FBL Fin. Servs., 557 U.S. 167, 178 (2009).

21. *See, e.g.*, H.R. REP. NO. 102-40 (Part I), at 45 (1991), *as reprinted in* 1991 U.S.C.C.A.N. 549, 583 (criticizing the *Price Waterhouse* case for "undercut[ting]" the goal of assuring Title VII liability "for all invidious consideration" of protected categories).

22. *Id.*

23. *See Gross*, 557 U.S. at 174–75 (holding that neither the motivating factor causation analysis nor the burden-shifting framework is relevant in claims brought under the ADEA, 29 U.S.C. § 623(a)(1)); *Nassar*, 570 U.S. at 351–52 (finding that the motivating factor causation analysis is only available in status-based discrimination cases under Title VII and not antidiscrimination retaliation cases filed under a different provision of Title VII); Comcast Corp. v. Nat'l Ass'n of Afr. Am.-Owned Media, 140 S. Ct. 1009, 1017 (2020) (holding that the motivating factor analysis from Title VII does not extend to claims alleging racial discrimination in failing to transact or conduct business with a party).

24. *See supra* note 23.

25. *Gross*, 557 U.S. at 169–70. Petitioner Jack Gross, a 54-year-old man, was reassigned to a different position at FBL Financial Group and cited his age as the reason for reassignment. *Id.* Gross filed suit, claiming age discrimination in violation of the statute. *Id.* at 170. At trial, Gross introduced evidence "suggesting that his assignment was based at least in part on his age." *Id.* The

employer . . . to fail or refuse to hire or to discharge any individual or otherwise discriminate against any individual with respect to his compensation, terms, conditions, or privileges of employment, *because of* such individual's age."[26] The Court read "because of" in this statute to take its ordinary meaning of "by reason of" or "on account of."[27] Therefore, the causation standard in the ADEA was determined to be but-for causation, meaning that the plaintiff retained the burden of persuasion to establish that age was the but-for cause of the adverse employment action.[28] In other words, the age of the plaintiff must be the sole reason for the adverse employment action, and the ADEA does not recognize an exception to its causation standard in mixed-motive age discrimination claims.[29]

C. *Mixed Motives and Title VII Retaliation:* University of Texas Southwestern Medical Center v. Nassar

The Supreme Court has also held that mixed-motive discrimination—and with it the lessened causation standard in Title VII—only applies to the status-based discrimination claims found in 42 U.S.C. § 2000e-2(a) and not the antiretaliation discrimination claims filed under 42 U.S.C. § 2000e-3.[30] Although the language of both provisions are similar and share similar goals, the Court held that the antiretaliation provision imposes a heightened standard of proof for causation.[31] This means that the motivating factor analysis that Congress incorporated into the status-

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district court instructed the jury that they must rule for the plaintiff if he proved, by a preponderance of the evidence, "that his 'age was a motivating factor' in FBL's decision to demote him." *Id.* at 170–71. After a finding for Gross, FBL appealed. *Id.* at 171.

26. 29 U.S.C. § 623(a)(1) (emphasis added).

27. *Gross*, 557 U.S. at 176.

28. *Id.* at 177–78.

29. *Id.* at 179–80. The *Gross* decision was a staunch departure from previous cases that found that Title VII and ADEA claims could be analyzed in the same manner. A federal court case from Illinois stated that "[g]iven the similarities in text and purpose between Title VII and ADEA, as well as the consistent trend of transferring the various proof methods and their accompanying rules from one statute to the other, this Court considers it likely that whatever doctrinal changes emerge as a result of *Desert Palace* in the Title VII context will be found equally applicable in the ADEA arena." Strauch v. Am. Coll. of Surgeons, 301 F. Supp. 2d 839, 844 n.10 (N.D. Ill. 2004).

30. Univ. of Tex. Sw. Med. Ctr. v. Nassar, 570 U.S. 338, 351–52 (2013). Title VII prohibits discrimination on seven total specified criteria. The first five are found in 42 U.S.C. § 2000e-2(a), which prohibits discrimination "because of" an employee's protected status: race, color, sex, religion, or national origin. The final two are found in Section 2000e-3, which prohibits an employer from retaliating "because of" an employee's participation in legal proceedings or opposition to illegal employment practices.

31. *Nassar*, 570 U.S. at 362–63; August T. Johannsen, *Mitigating the Impact of Title VII's New Retaliation Standard: the Americans with Disabilities Act After University of Texas Southwestern Medical Center v. Nassar*, 56 WM. & MARY L. REV. 303, 315 (2014).

based discrimination provision does not extend to Section 2000e-3.[32] In antiretaliation claims, the Court has found that the "because of" language in Section 2000e-3 requires the application of a but-for causation standard, even though the "because of" language in Section 2000e-2(a) requires the motivating factor standard.[33] The Court reasoned that Congress enacted Title VII with tort law as the background and that tort law was the default rule absent an indication to the contrary in the statute itself.[34] The Court embraced a fragmented application of tort law in the context of Section 2000e-3 despite the absence of factors traditionally present in other tort law applications.

D. *Mixed Motives and Section 1981:* Comcast Corp. v. National Association of African American-Owned Media

Mere months before *Bostock*, in an unanimous opinion also authored by Justice Gorsuch, the causation standard throughout the life of a Section 1981 lawsuit was found to be but-for causation, which required the plaintiff to show that race was *the* reason for the failure to contract.[35] In *Comcast Corp.*, Entertainment Studios Network (ESN)—owned by an African American man—sought to have Comcast carry its channels.[36] However, "Comcast refused, citing lack of demand for ESN's programming, bandwidth constraints, and its preference for news and sports programming that ESN didn't offer."[37] When negotiations halted, ESN sued, claiming Comcast disfavored contracting with media companies owned by African Americans in violation of 42 U.S.C. § 1981.[38] The district court dismissed the complaint for ESN's failure to show that, but for racial animus, Comcast would have contracted with them.[39] The Ninth Circuit reversed, determining that "[a] § 1981 plaintiff doesn't have to point to facts plausibly showing that racial animus was a 'but for' cause of the defendant's conduct. Instead, . . . a plaintiff must only plead facts plausibly showing that race played 'some role' in the defendant's decisionmaking [sic] process."[40] Finding a circuit split over the correct causation standard for Section 1981 claims, the Supreme Court granted certiorari to resolve the disagreement.[41]

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32. *Nassar*, 570 U.S. at 352.

33. *Id.*

34. *Id.*

35. Comcast Corp. v. Nat'l Ass'n of Afr. Am.-Owned Media, 140 S. Ct. 1009, 1015 (2020).

36. *Id.* at 1013.

37. *Id.*

38. *Id.* The statute provides that "[a]ll persons . . . shall have the same right . . . to make and enforce contracts . . . as is enjoyed by white citizens." 42 U.S.C. § 1981.

39. *Comcast Corp.*, 140 S. Ct. at 1013.

40. *Id.*

41. *Id.* at 1014. The noted split was between the Seventh and the Ninth Circuits. *Id.*; *see* Bachman v. St. Monica's Congregation, 902 F.2d 1259, 1262–63 (7th Cir. 1990) ("[T]o be

Despite the plaintiff's argument that the causation standard in Section 1981 should be informed by the motivating factor test applied to Title VII, the Court held that the correct standard for violations of Section 1981 was the "textbook tort law" standard of but-for causation.[42] Exploring the differences between Section 1981 and Title VII, Justice Gorsuch noted that the statutes have "two distinct histories, and not a shred of evidence that Congress meant them to incorporate the same causation standard."[43] The *Comcast Corp.* case further illustrates how the Court has failed to provide consistency in defining causation in discrimination cases.[44]

II. SINGLE MOTIVE DISCRIMINATION AND BUT-FOR CAUSATION

Single motive discrimination occurs when an employer makes an employment action based solely on the protected classification and can be established by either direct or circumstantial evidence.[45] When the plaintiff presents direct evidence, the burden automatically shifts to the employer to show that the discrimination was not the motive for the adverse employment action.[46] When the plaintiff presents circumstantial evidence, she must proceed through the *McDonnell Douglas* test.[47] Under the *McDonnell Douglas* burden-shifting framework: (1) the plaintiff must establish a prima facie case of intentional discrimination; (2) upon such a showing by the plaintiff, the burden shifts to the defendant-employer to show a legitimate, nondiscriminatory motive; and (3) if defendant succeeds, the burden shifts back to the plaintiff to prove that the nondiscriminatory motive was pretextual.[48] This framework is "used primarily in cases litigated under the disparate treatment theory of discrimination."[49]

The Supreme Court first recognized the requirement of but-for causation in single motive discrimination cases in *Gross*.[50] The *Gross* case incorporated the common law tort doctrine of causation into

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actionable, racial prejudice must be a but-for cause . . . of the refusal to transact."); Nat'l Ass'n of Afr. Am.-Owned Media v. Charter Commc'ns, Inc., 915 F.3d 617, 626 (9th Cir. 2019) (holding that the test for causation is whether discriminatory intent played any role in the decision by a defendant to refuse contracting with the plaintiff), *vacated*, 804 F. App'x 710 (9th Cir. 2020).

42. *Comcast Corp.*, 140 S. Ct. at 1014.

43. *Id.* at 1017.

44. *Id.* at 1017–18.

45. Paul J. Gudel, *Beyond Causation: The Interpretation of Action and the Mixed Motives Problem in Employment Discrimination Law*, 70 TEX. L. REV. 17, 49 (1991).

46. *Id.* at 25.

47. McDonnell Douglas Corp. v. Green, 411 U.S. 792, 802 (1973).

48. *Id.*; Gudel, *supra* note 45, at 24.

49. Robert Belton, *Mixed-Motive Cases in Employment Discrimination Law Revisited: A Brief Updated View of the Swamp*, 51 MERCER L. REV. 651, 652 (2000).

50. *See supra* Part I, Section B.

employment discrimination.[51] In tort law, but-for causation means that "an act (omission, condition, etc.) was a cause of an injury if and only if, but for the act, the injury would not have occurred."[52] According to the Restatement (Third) on Torts, "an actor's tortious conduct need only be *a* factual cause of the other's harm."[53] This definition intimates the theory that the act must have been a necessary condition for the occurrence of the injury.[54] However, other causes being present does not affect whether specified tortious conduct was a necessary condition for the harm to occur.[55] Those other causes may be "innocent or tortious, known or unknown, influenced by the tortious conduct or independent of it, but so long as the harm would not have occurred absent the tortious conduct, the tortious conduct is a factual cause."[56]

In the employment discrimination context, this means that an employee must identify a determinative reason or the driving force behind the adverse action.[57] The Court in *Gross* applied this principle differently, stating that, "the ordinary meaning of the ADEA's requirement that an employer took adverse action 'because of' age is that age was *the* 'reason' that the employer decided to act."[58] Although the *Gross* Court appeared to be using tort law as a background for enforcing employment discrimination,[59] the Court only incorporated a fragmented definition of but-for causation. If the Court were to utilize the basic tort law concept of but-for causation, it would instruct that there can be several reasons for a single act and, when that occurs, causation is not quite so clear.[60]

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51. *Id.*

52. Richard W. Wright, *Causation in Tort Law*, 73 CAL. L. REV. 1735, 1775 (1985).

53. RESTATEMENT (THIRD) OF TORTS: PHYSICAL & EMOTIONAL HARM § 26 cmt. c (AM. L. INST. 2010) (emphasis added).

54. *Id.*

55. *Id.*

56. *Id.*

57. Kelly S. Hughes, *'But-For' Causation Under Bostock*, NAT'L L. REV. (June 24, 2020), https://www.natlawreview.com/article/causation-under-bostock [https://perma.cc/6KGF-RL RK]; Sandra Sperino, *Comcast and Bostock Offer Clarity on Causation Standard*, AM. BAR ASS'N (Jan. 11, 2021), https://www.americanbar.org/groups/crsj/publications/human_rights_magazine_home/civil-rights-reimagining-policing/comcast-and-bostock-offer-clarity-on-causation-standard/ [https://perma.cc/9WCT-6VMQ].

58. Gross v. FBL Fin. Servs., 557 U.S. 167, 176 (2009) (emphasis added).

59. *Id.* at 176–77.

60. Starr, *supra* note 15, at 96 n.31.

III. *BOSTOCK V. CLAYTON COUNTY*: TITLE VII PROHIBITS DISCRIMINATION "BECAUSE OF" AN INDIVIDUAL'S SEXUAL ORIENTATION AND GENDER IDENTITY

In a 6-3 decision, the Supreme Court held that sex discrimination in Title VII includes when an employer discriminates against an employee based on their sexual orientation or gender identity.[61] In an opinion written by Justice Gorsuch, joined by all the Court's liberal justices and Chief Justice Roberts, the definition of sex discrimination—at least within the confines of Title VII—was expanded yet again.[62]

Bostock involved three consolidated cases from the Eleventh, Second, and Sixth Circuits.[63] The first case concerned Gerald Bostock, who was employed by Clayton County, Georgia, as a child welfare advocate.[64] After a decade of working with the county, Bostock began participating in a gay recreational softball league, leading community members to make disparaging comments about Bostock's sexual orientation and participation in the league.[65] Soon after joining the league, Bostock was fired for exhibiting conduct "unbecoming" of a county employee.[66] The second case arose from the experience of Donald Zarda, who had worked as a skydiving instructor at Altitude Express in New York.[67] After several seasons with the company, Zarda mentioned that he was gay to a woman during a skydiving jump in an effort to minimize her concern about being closely strapped to an unfamiliar man.[68] The woman alleged to her boyfriend that Zarda had inappropriately touched her during the jump, which Zarda denied. Days later, he was fired.[69] In the third case, Aimee Stephens worked at a funeral home in Garden City, Michigan.[70] When Stephens first started the job, Stephens presented as a male.[71] During Stephens's sixth year with the company, however, Stephens wrote a letter to the funeral home explaining that, after returning from vacation, Stephens planned to "live and work full-time as a woman."[72] Stephens's

61. Bostock v. Clayton Cnty., Ga., 140 S. Ct. 1731, 1754 (2020).

62. *Id.*; *see, e.g.*, Oncale v. Sundowner Offshore Servs., Inc., 523 U.S. 75, 82 (1998) (holding that sex discrimination arising from same-sex sexual harassment is actionable under Title VII).

63. *Bostock*, 140 S. Ct. at 1737–38.

64. *Id.* at 1737.

65. *Id.* at 1738.

66. *Id.*

67. *Id.*

68. *Id.*; Zarda v. Altitude Express, Inc., 883 F.3d 100, 109 (2d Cir. 2018), *aff'd sub nom.* Bostock v. Clayton Cnty., Ga., 140 S. Ct. 1731, 1738 (2020).

69. *Zarda*, 883 F.3d at 109.

70. Bostock v. Clayton Cnty., Ga., 140 S. Ct. 1731, 1738 (2020).

71. *Id.*

72. *Id.* (internal quotations omitted).

employer responded by saying, "this is not going to work out," and terminated her before she left."[73]

Each of the three employees filed suit under Title VII of the Civil Rights Act of 1964, alleging violations of Title VII's prohibition on sex discrimination.[74] Bostock and Zarda's claims were based on sexual orientation, while Stephens's claim was based on gender identity.[75] Achieving varying results in the appellate courts, certiorari was granted, and the cases were heard by the U.S. Supreme Court.[76]

The Court sought to address the issue of whether the term "sex" in Title VII includes sexual orientation and gender identity.[77] The majority opinion held:

> An employer violates Title VII when it intentionally fires an individual employee based in part on sex. It doesn't matter if other factors besides the plaintiff's sex contributed to the decision. If the employer intentionally relies in part on an individual employee's sex when deciding to discharge the employee—put differently, if changing the employee's sex would have yielded a different choice by the employer—a statutory violation has occurred. [78]

The Court acknowledged that the question was not only what "sex" means but also what Title VII says about it.[79] Essentially, Title VII provides that an employer cannot take adverse employment actions "because of" sex.[80] The ordinary meaning of "because of" is "by reason of" or "on account of."[81] The Court characterized the causation standard in Title VII as "simple" or "traditional" but-for causation.[82] The standard requires changing one variable at a time to see if the outcome changes.[83] Relying on this standard, the Court reasoned that if each employee's sex were changed (for example, if Bostock or Zarda were instead women attracted to men), then the employer would not have taken the adverse employment action of firing them.[84] Thus, an employer's decision to fire

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73. *Id.* (internal quotations omitted).
74. *Id.*
75. *Id.*
76. *Bostock*, 140 S. Ct. at 1738.
77. *Id.* at 1739.
78. *Id.* at 1741.
79. *Id.* at 1739.
80. *Id.*
81. *Id.* (citing Univ. of Tex. Sw. Med. Ctr. v. Nassar, 570 U.S 338, 350 (2013)) (internal quotations omitted).
82. *Bostock*, 140 S. Ct. at 1739.
83. *Id.*
84. *Id.* at 1740.

a man for what the employer would not have fired a woman for constitutes a violation of Title VII.[85] The Court wrote:

> When an employer fires an employee because she is homosexual or transgender, two causal factors may be in play—*both* the individual's sex *and* something else (the sex to which the individual is attracted or with which the individual identifies). But Title VII doesn't care. If an employer would not have discharged an employee but for that individual's sex, the statute's causation standard is met, and liability may attach.[86]

Here, the causation standard for status-based discrimination claims asserted under Title VII was set forth in no uncertain terms. The protected classification need not be the *sole* reason for the adverse employment action, so long as the classification played "some role" in the action.[87]

The previously-discussed line of cases reveals the inconsistent application of causation in the area of antidiscrimination law prior to *Bostock*. Absent a clear showing that Congress has added the "motivating factor" language to a particular statute, the Supreme Court resorted to purported tort law concepts and but-for causation.[88] But-for causation was read to mean that the protected classification is *the* reason—instead of *a* reason—for the employer's actions.[89] Therefore, an employer could escape liability by showing that there was *some* nondiscriminatory motive for the adverse action. The use of but-for causation in antidiscrimination statutes presumes two things: (1) it is appropriate to apply common law to federal statutes; and (2) common law requires the plaintiff to establish but-for causation.[90]

The majority opinion in *Bostock* was the first time that the Court explicitly acknowledged the broader interpretation of causation in tort

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85. *Id.*

86. *Id.* at 1742 (emphasis in original).

87. *Id.* at 1743.

88. *See* Gross v. FBL Fin. Servs., 557 U.S. 167, 174–75 (2009) (explaining that the motivating factor causation analysis and the burden-shifting framework are inapplicable to claims brought under the ADEA); *see also* Univ. of Tex. Sw. Med. Ctr. v. Nassar, 570 U.S. 338, 351–52 (2013) (holding that the motivating factor analysis is not available in antidiscrimination retaliation cases); Comcast Corp. v. Nat'l Ass'n of Afr. Am.-Owned Media, 140 S. Ct. 1009, 1017 (2020) (finding that the motivating factor analysis does not extend to claims alleging racial discrimination in failing to transact or conduct business).

89. Sperino, *supra* note 57.

90. *Id.* The dissent in *Nassar* rejected the idea that it was appropriate to import this tort concept into discrimination law. *Nassar*, 570 U.S. at 385 (Ginsburg, J., dissenting). The dissent noted that but-for causation was developed to explain the causal connections between physical forces and that it was difficult to use this concept to explain discrimination cases, which often rely on motive, intent, or animus. *Id.*

law and its relation to antidiscrimination law.[91] The Court incorporated the idea that there can be multiple but-for causes, but the presence of multiple causes does not completely absolve the employer of liability.[92] This raises two points for consideration: (1) whether *Bostock*'s textual interpretation of but-for causation is correct; and (2) what that interpretation means for racial stereotyping and its recognition as race discrimination. Regarding the first question, the causation standard described in *Bostock* is the correct textual reading of "because of" in Title VII. To the second point, this textualist reading should provide the backdrop for recognizing the full panoply of racial stereotypes as discrimination.

Bostock's understanding of causation requires courts to change one condition at a time and see if the result would change.[93] Returning to the story of Kayla,[94] to be able to succeed under the *Bostock* standard for a single motive discrimination claim, Kayla would have to prove that if her race was changed, then she would not have suffered the adverse employment action.[95] Thus, if Kayla could prove that her race was inextricably tied to her termination because of underlying stereotypes related to grooming policies, the burden would shift to the employer to prove that it acted without a discriminatory motive.[96] In current practice, the employer would simply point out that Kayla's failure to adhere to grooming policies, not racial stereotypes, was the reason for her termination.

Such a result is inequitable and does not align with the spirit and purpose of Title VII. Accordingly, the current method of analyzing racial stereotyping cases under Title VII needs to change. The *Bostock* standard of causation, in conjunction with a more expansive understanding of race, should be applied to racial stereotyping. Under this approach, even supposing that the adverse action taken by the employer was based in part on the grooming policies, Kayla could prove her hairstyle was inextricably linked to her race or that the policies were based on stereotyping directly connected to race, making race a but-for cause of the termination and establishing that the employer violated Title VII.

91. *Bostock*, 140 S. Ct. at 1739.
92. *Id.*
93. *Id.*
94. *See supra* INTRODUCTION.
95. *Bostock*, 140 S. Ct. at 1739–40.
96. McDonnell Douglas Corp. v. Green, 411 U.S. 792, 802 (1973).

IV. DEFINING STEREOTYPE THEORY AND RACIAL STEREOTYPES

Stereotypes are cognitive schemes that social perceivers use to process information about others.[97] Stereotypes not only reflect beliefs about the traits that characterize typical group members but also consist of information about "social roles[] [as well as] the degree to which members of the group share specific qualities," and "influence emotional reactions to group members."[98] Stereotypes are ubiquitous. Among other things, they cover racial groups ("white people do not season their food"), political groups ("Republicans are rich"), genders ("women are bad drivers"), demographic groups ("Southern hospitality"), and activities ("flying is dangerous"). Indeed, some stereotyping is necessary and does not harbor invidious motives.[99] A considerable amount of commonly-held stereotypes are not products of explicit discrimination or conscious attitudes but of "implicit beliefs that are 'automatically activated by the mere presence (actual or symbolic) of the attitude object,' and that 'commonly function in an unconscious and unintentional fashion.'"[100]

Stereotyping as a form of actionable discrimination was first extrapolated as violative of the constitutional protection against sex discrimination through the Equal Protection Clause.[101] Sex stereotyping was recognized as actionable under Title VII in *Price Waterhouse*.[102] Hopkins, criticized for being "macho" and "masculine," argued that she had to conform to traditional ideals of femininity to be eligible for partnership at the company.[103] The U.S. Supreme Court recognized that "an employer who acts on the basis of a belief that a woman cannot be aggressive, or that she must not be, has acted on the basis of gender."[104] The remarks by the partners and other employees at the accounting firm were characterized as sex stereotyping that contributed to Hopkins not being promoted to partner and therefore supported a claim of sex discrimination.[105]

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97. JOHN F. DOVIDIO, THE SAGE HANDBOOK OF PREJUDICE, STEREOTYPING AND DISCRIMINATION 7 (2010).

98. *Id.*

99. *See, e.g.*, Linda Hamilton Krieger, *The Content of Our Categories: A Cognitive Bias Approach to Discrimination and Equal Employment Opportunity*, 47 STAN. L. REV. 1161, 1163–64 (1995) (pointing out the ways that parents teach their children to "stereotype" about potentially dangerous animals or interactions with strangers in order to guide children to safe choices).

100. Melissa Hart, *Subjective Decisionmaking and Unconscious Discrimination*, 56 ALA. L. REV. 741, 746 (2005).

101. Stephanie Bornstein, *Unifying Antidiscrimination Law Through Stereotype Theory*, 20 LEWIS & CLARK L. REV. 919, 965 (2016).

102. *See supra* Part I, Section A.

103. Bornstein, *supra* note 101, at 955.

104. Price Waterhouse v. Hopkins, 490 U.S. 228, 250 (1989).

105. *Id.* at 251.

Although the employer attempted to claim sex stereotypes were not legally relevant, the Court disagreed, stating, "[W]e are beyond the day when an employer could evaluate employees by assuming or insisting that they matched the stereotype associated with their group."[106] In acknowledging the truly broad nature of Title VII, the Court further acknowledged that Congress "intended to strike at the entire spectrum of disparate treatment of men and women resulting from sex stereotypes."[107] Thus, *Price Waterhouse* formulated stereotyping as a legal theory to frame disparate treatment, addressing more subtle or structural discrimination by exposing how workplace structures rely on stereotypes associated with protected class status to disadvantage members of that class.

Stereotyping cases have generally taken one of two forms. The first, known as descriptive stereotyping, is characterized by an employee being penalized and discriminated against based on the assumption that she will conform to the negative stereotype associated with her group.[108] The second, known as prescriptive stereotyping, occurs when an employee is penalized and discriminated against for failing to conform to a stereotype associated with the group that she is a part of.[109]

A. *Defining Racial Stereotypes*

How has sex stereotyping theory transplanted to race discrimination? The holding of *Price Waterhouse* was not limited to the context of sex discrimination. Sex and race stereotypes are based on the same social science of conscious and unconscious biases, and these stereotypes manifest in workplace structures and culture the same way. The difference is that sex stereotyping theory has not been fully transplanted.[110] To understand the issue, it is important to first understand what racial stereotypes are, how racial stereotypes relate to race discrimination, and how such stereotypes come to influence employment decisions.

Racial stereotypes, as with all stereotypes, arise from deeply-held, historical beliefs about how certain groups of people function in

106. *Id.*

107. *Id.* (quoting L.A. Dep't of Water & Power v. Manhart, 435 U.S. 702, 707 n.13 (1978)) (internal quotations omitted).

108. Bornstein, *supra* note 101, at 962 (describing the use of descriptive stereotyping in caregiver cases where a mother is discriminated against because of the stereotype she is less competent or less committed to work).

109. *Id.* at 962–63 (describing the use of prescriptive stereotypes in transgender cases where an employee is discriminated against for not conforming to the stereotypical notions of how a man or woman is supposed to dress or act).

110. *Id.* at 963–64; Katie Eyer, *The New Jim Crow Is the Old Jim Crow*, 128 YALE L.J. 1002, 1065 (2019).

society.[111] There is a historical and cultural heritage in which racism has played and still plays a dominant role.[112] Due to this shared historical and cultural experience, humans "attach significance to an individual's race and induce negative feelings and opinions about nonwhites."[113] The failure to recognize racial stereotyping as actionable under Title VII begins with society not recognizing the ways that cultural experiences have influenced people's beliefs about race or the occasions in which those beliefs affect human actions.[114] Due to this lack of recognition, racial stereotyping jurisprudence has been slow to develop.[115] Some legal scholars trace the dearth of jurisprudence to the failure to define what it means to stereotype because of race.[116]

In both the statutory and constitutional contexts, there are readily accessible ideas regarding what gender stereotypes are.[117] The same is not true for racial stereotypes.[118] However, this does not indicate that racial stereotypes do not exist. Both cognitive and social psychologists have recognized the various racial stereotypes that contribute to racial inequality in America.[119] No matter the framing of racist stereotypes, the core set of beliefs in the United States is that African Americans are "dangerous, lazy, less competent, less refined, and lacking in moral values."[120] Terry Smith stated that "modern culture feeds and reinforces black stereotypes of incompetence, occupational instability, primitive morality, and similar derogatory perceptions."[121]

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111. Terry Smith, *Everyday Indignities: Race, Retaliation, and the Promise of Title VII*, 34 COLUM. HUM. RTS. L. REV. 529, 537 (2003).

112. *Id.*

113. Charles R. Lawrence, *The Id, the Ego, and Equal Protection: Reckoning with Unconscious Racism*, 39 STAN. L. REV. 317, 322 (1987).

114. *Id.*

115. Bornstein, *supra* note 101, at 964–76.

116. *See id.* at 957 (discussing how the stray remark doctrine has had a disproportionate impact on the growth of the racial stereotyping doctrine).

117. For the statutory context, *see* Price Waterhouse v. Hopkins, 490 U.S. 228, 258 (1989) ("Price Waterhouse appears to think that we cannot affirm the factual findings of the trial court without deciding that, instead of being overbearing and aggressive and curt, Hopkins is, in fact, kind and considerate and patient. If this is indeed its impression, petitioner misunderstands the theory on which Hopkins prevailed . . . . It is not our job to review the evidence and decide that the negative reactions to Hopkins were based on reality; our perception of Hopkins' character is irrelevant. We sit not to determine whether Ms. Hopkins is nice, but to decide whether the partners reacted negatively to her personality because she is a woman."); Bornstein, *supra* note 101, at 925 ("Doctrinal and theoretical advances in cutting-edge sex stereotyping cases [under Title VII] have broad application that can reinvigorate employment discrimination litigation as a whole."). For the constitutional context, *see* Cary Franklin, *The Anti-Stereotyping Principle in Constitutional Sex Discrimination Law*, 85 N.Y.U. L. REV. 83 *passim* (2010).

118. Eyer, *supra* note 110.

119. *Id.* at 1066.

120. *Id.*

121. Smith, *supra* note 111.

B. *Racial Stereotypes in the Courts*

Although racial stereotypes should be commonly understood as growing out of the history of American segregation and Jim Crow laws, courts have largely failed to perceive how such stereotypes manifest in everyday workplace structures.[122] Cases that have been brought under the racial stereotype theory have been subject to the disproportionate effect of the "stray remark doctrine."[123] This doctrine exists because an employee must present evidence that her protected status was a motivating factor in the employment decision.[124] One way an employee can do that is by showing that comments made by others in the workplace are discriminatory. Stray remarks are comments that are discriminatory but "do not truly show that discrimination was a motivating factor in the relevant employment decision."[125]

Under the stray remarks doctrine, when the statements are made by non-decisionmakers or by decisionmakers who did not participate in the decision process, those statements are seen as neutral and nondiscriminatory.[126] Because statements that would otherwise be discriminatory are characterized as stray remarks, such statements are often discounted by courts for proving direct evidence of protected classification discrimination.[127] The stray remarks doctrine has faced much criticism because it does not account for the impact of workplace culture on employment decisions or acknowledge that biased decision-

122. Eyer, *supra* note 110, at 1053, 1064.

123. Bornstein, *supra* note 101, at 957.

124. 42 U.S.C. § 2000e-2(m).

125. David M. Litman, *What Is the Stray Remarks Doctrine? An Explanation and a Defense*, 65 CASE W. RES. L. REV. 823, 835 (2015).

126. Price Waterhouse v. Hopkins, 490 U.S. 228, 277 (1989) (O'Connor, J., concurring). There are also many factors that courts weigh in determining whether statements qualify as "stray remarks," such as "whether the comments were made by a decision maker or by an agent within the scope of his employment; whether they were related to the decision-making process; whether they were more than merely vague, ambiguous, or isolated remarks; and whether they were proximate in time to the act of termination." Cooley v. Carmike Cinemas, Inc., 25 F.3d 1325, 1330 (6th Cir. 1994).

127. *See* Wallace v. Methodist Hosp. Sys., 85 F. Supp. 2d 699, 711 (S.D. Texas 2000) ("[A] workplace remark may be so deficient under one or more . . . criteria—for example, remote in time from the challenged action or not made by a relevant decisionmaker—as to be a stray remark wholly lacking in probative value even as 'indirect' evidence of discrimination."). Under antidiscrimination law, cases can be proved through direct or circumstantial evidence. When the plaintiff presents direct evidence, the burden automatically shifts to the defendant to show the discrimination was not the motive for the adverse employment action. When the plaintiff presents circumstantial evidence, she must proceed through the three-part *McDonnell Douglas* test. Bornstein, *supra* note 101, at 942; *see supra* Part II.

making is present long before the "moment of decision."[128] The doctrine also allows judges to "usurp the role of the jury by making improper determinations regarding questions of fact related to discriminatory remarks."[129] Courts should not use the stray remarks doctrine to discount racial discrimination that is shown through comments that exhibit manifest racial stereotypes.

Plaintiffs have attempted to attack adverse employment actions on the basis of racial stereotypes that operate as discrimination.[130] However, courts have largely maintained that racial discrimination is only actionable under Title VII when tied to the immutable characteristics of an individual and not the cultural characteristics that emanate from the individual's race.[131] Case law has drawn a harsh line between wearing Black hair in a natural state (such as an Afro), which is immutable,[132] from wearing Black hair in a protective style (such as braids), which is mutable.[133]

The approach by the Equal Employment Opportunity Commission (EEOC) could assist in the development of a racial stereotype jurisprudence. The EEOC has sued employers who perpetuate racial harassment through coded language. In *EEOC v. Gonnella Baking Co.*,[134] a bread manufacturer agreed to pay $30,000 to settle a lawsuit brought by the EEOC alleging racial harassment at one of the manufacturer's facilities.[135] The manufacturer failed to adequately respond to complaints

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128. Laina Rose Reinsmith, *Proving an Employer's Intent: Disparate Treatment Discrimination and the Stray Remarks Doctrine After Reeves v. Sanderson Plumbing Products*, 55 VAND. L. REV. 219, 248 (2002).

129. Litman, *supra* note 125, at 842.

130. *E.g.*, EEOC v. Catastrophe Mgmt. Sols., 852 F.3d 1018, 1020–21 (11th Cir. 2016) (holding that, when the plaintiff refused to cut her dreadlocks pursuant to her future employer's grooming policy and the employer rescinded her job offer, the plaintiff had no Title VII claim against the employer).

131. *Catastrophe Mgmt. Sols.*, 852 F.3d at 1030. "[A]s a general matter, Title VII protects persons in covered categories with respect to their immutable characteristics, but not their cultural practices . . . . We recognize that the distinction between immutable and mutable characteristics of race can sometimes be a fine (and difficult) one, but it is a line that courts have drawn. So, for example, discrimination on the basis of black hair texture (an immutable characteristic) is prohibited by Title VII, while adverse action on the basis of black hairstyle (a mutable choice) is not." *Id.*

132. *See* Jenkins v. Blue Cross Mut. Hosp. Ins., Inc., 538 F.2d 164, 168 (7th Cir. 1976) (finding a Title VII claim for racial discrimination where plaintiff was denied a promotion because she wore her hair in a natural Afro).

133. *See* Rogers v. Am. Airlines, Inc., 527 F. Supp. 229, 232 (S.D.N.Y. 1981) (holding that an employer does not violate Title VII for having a grooming policy prohibiting all-braided hairstyles, since braids are not an immutable characteristic).

134. No. 08 C 5240, 2009 WL 307509, at *1 (N.D. Ill. Feb. 5, 2009).

135. *EEOC Sues Gonnella Baking Company for Race Harassment*, EEOC (June 3, 2015), https://www.eeoc.gov/newsroom/eeoc-sues-gonnella-baking-company-race-harassment [https://perma.cc/53LA-8RVV].

of pervasive racial harassment.[136] Examples of the harassment included persistent coded references to Black employees as "you people," as well as offensive statements such as, "you people are lazy," and "I better watch my wallet around you."[137] While this case suggests that using coded racist language is a violation of Title VII, it did not expressly characterize such behavior as racial stereotyping, classifying it instead as racial harassment.[138]

Racist stereotypes infiltrate all parts of society. The most notable is the dangerousness stereotype, which leads to over-policing of areas where the majority of the population is Black.[139] Other racist stereotypes (that Black people are "lazy, less competent, less refined, lacking moral values," lacking in occupational instability, and unprofessional) all seep into the employment context and function to limit or eliminate access to certain employment opportunities.[140] During the hiring process, even before having any interaction with an individual seeking employment, decisionmakers make background assumptions that influence how they perceive a job candidate.[141] These background assumptions can be about the candidate's name, their neighborhood based on their address, where they went to school, and many other criteria.[142] It is common knowledge that in some employment decisions, a white candidate may be viewed as "more charismatic, thoughtful, collegial, or articulate than a Black candidate, not because the white candidate in fact possesses those higher qualifications, but because of the decisionmaker's preexisting assumptions."[143] When racial stereotypes are deeply held by employers in the workplace, "disparate treatment may occur precisely because the sincerity of those beliefs makes those who hold them genuinely perceive individual African Americans (or the communities they are a part of) as more dangerous, lazier, or less committed to academic or workplace achievement."[144]

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136. *Id.*

137. *Id.* (internal quotations omitted).

138. *See id.* ("Such alleged conduct violates Title VII of the Civil Rights Act of 1964, which prohibits workplace discrimination (including harassment) on the basis of race."). However, an attorney for the EEOC stated, "Racial comments and stereotypes have no place in a modern workplace, and the EEOC will hold employers accountable for that misconduct," perhaps indicating that racial stereotyping violates Title VII in the EEOC's view. *See id.* (internal quotations omitted).

139. Eyer, *supra* note 110, at 1068.

140. *Id.* at 1067.

141. Hart, *supra* note 100, at 746.

142. *Id.*

143. *Id.*

144. Eyer, *supra* note 110, at 1061.

C. *Bostock's Causation and Racial Stereotypes*

Returning to *Bostock*, Justice Gorsuch detailed a causation standard that can and should be instructive in how courts evaluate claims of racial stereotyping that resulted in an adverse employment action. In the context of sex discrimination, Justice Gorsuch characterized the causation standard in Title VII as "simple" or "traditional" but-for causation.[145] This test mandates that whenever a particular outcome would not have happened "but for" the purported cause, then a but-for cause has been found.[146]

Justice Gorsuch acknowledged that the test is a sweeping standard but argued that Congress had already moved in this direction by adding the "motivating factor" language to Title VII.[147] The *Bostock* causation standard "afford[s] a viable, if no longer exclusive, path to relief under Title VII."[148] The *Bostock* Court established that there are two ways to achieve relief under Title VII: (1) proving that the employer was impermissibly motivated by a protected category in making an employment decision or (2) establishing that a protected category was a but-for cause and played some role in the employment decision.[149]

The *Bostock* understanding of causation may cause confusion as to the difference between mixed motive or motivating factor discrimination and single motive or but-for discrimination cases. It is instructive to think of the *Bostock* standard as akin to the multiple sufficient causes concept in tort law. Section 27 of the Restatement (Third) of Torts states that "[i]f multiple acts occur, each of which . . . alone would have been a factual cause of the physical harm at the same time in the absence of the other act(s), each act is regarded as a factual cause of the harm."[150] Similarly, in *Bostock*, Justice Gorsuch articulated that even if an employer had another legitimate, non-discriminatory reason that, standing alone, would have resulted in the adverse employment action, the employer still cannot defeat liability if the protected classification was a but-for cause.[151]

If *Bostock*'s interpretation is the proper meaning of "because of" in Title VII, then it should be the meaning of "because of" in all antidiscrimination statutes.[152] However, the Supreme Court has not

145. Bostock v. Clayton Cnty., Ga., 140 S. Ct. 1731, 1739 (2020).

146. *Id.*

147. *Id.*

148. *Id.* at 1740.

149. This rationale may seem to conflate the two standards, but an important distinction is that with the motivating factor analysis, the protected category does not have to be a but-for cause, while in the traditional or simple but-for causation analysis, the protected category must be a but-for cause, though there may be multiple but-for causes.

150. RESTATEMENT (THIRD) OF TORTS: PHYSICAL & EMOTIONAL HARM § 27 (AM. L. INST. 2010).

151. *Bostock*, 140 S. Ct. at 1739.

152. *Id.*

followed this approach, as evidenced by Justice Gorsuch's decision in *Comcast Corp.*[153] In *Comcast Corp.*, ESN alleged that race played a role in Comcast's decision not to contract with it.[154] Comcast provided non-discriminatory motives for their failure to contract, and the Court stated that the inquiry ended there.[155] Nevertheless, a few months later in *Bostock*, Justice Gorsuch wrote that "the adoption of the traditional but-for causation standard means a defendant cannot avoid liability just by citing some other factor that contributed to its challenged employment decision."[156]

It has been opined that race is different than the other protected categories in Title VII, in a way that would appear to lend to more protection against racial discrimination, not less.[157] Race, unlike sex, national origin, or religion, can never be used as a bona fide occupational qualification in the selection of employees.[158] Further, when race is impermissibly used in an adverse employment practice, an employee is entitled to unlimited compensatory and punitive damages, whereas such damages are capped at $300,000 in sex discrimination cases.[159] Race discrimination in violation of the Fourteenth Amendment is subject to strict scrutiny review,[160] while sex discrimination is only subject to intermediate scrutiny review.[161]

The following Subsection will argue that the *Bostock* causation standard is the correct one and that the standard should operate to allow courts to more readily recognize adverse employment actions that occur "because of" racial stereotypes under Title VII.

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153. *See supra* Part I, Section D.

154. Comcast Corp. v. Nat'l Ass'n of Afr. Am.-Owned Media, 140 S. Ct. 1009, 1013 (2020).

155. *Id.*

156. *Bostock*, 140 S. Ct. at 1739.

157. Smith, *supra* note 111, at 529.

158. *See* 42 U.S.C. § 2000-2(e) (2020) (allowing consideration of sex, religion, or national origin "in those certain instances where religion, sex, or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of [a] particular business or enterprise").

159. *Compare* 42 U.S.C. § 1981 (2000) (providing a cause of action for race and national origin claims), *with* 42 U.S.C. § 1981a(b)(3) (2000) (capping damages in Title VII cases, including gender discrimination cases). *See generally* Kim v. Nash Finch Co., 123 F.3d 1046, 1062 (8th Cir. 1997) (noting the absence of caps on punitive and compensatory damages under Section 1981); Kolstad v. Am. Dental Ass'n, 108 F.3d 1431, 1445 n.2 (D.C. Cir. 1997) (noting that Title VII encompasses sex discrimination claims in the employment context while Section 1981 does not).

160. *See* Korematsu v. United States, 323 U.S. 214, 216 (1944) ("[A]ll legal restrictions which curtail the civil rights of a single racial group are immediately suspect. That is not to say that all such restrictions are unconstitutional. It is to say that courts must subject them to the most rigid scrutiny.").

161. *See* United States v. Virginia, 518 U.S. 515, 532 (1996) (reviewing a male-only admissions policy at a state military institution under intermediate scrutiny).

1. The Correct Causation Standard

Although this Note mostly concerns but-for causation, which is usually associated with the burden shifting framework of *McDonnell Douglas*,[162] causation has taken on many iterations in the disparate treatment land of employment discrimination.[163] As discussed, the basic tort law understanding of but-for causation is one that accounts for multiple but-for causes.[164] In the cases before *Bostock*, the Supreme Court indicated that tort law was in the background of civil rights statutes and that basic tort law causation was to be applied.[165] The main issue with this causation standard pre-*Bostock* is that the protected classification was found to have to be the *sole* reason for the adverse employment action or failure to contract.[166] To be said another way, pre-*Bostock* cases adopted an incomplete version of but-for causation. In *Bostock*, the Court adopted a more complete picture of factual causation, where there can be multiple causes without defeating an employer's liability.[167] The holding in *Bostock* is more consistent with "textbook tort law"[168] than any of the holdings in prior Supreme Court decisions. Legal commentators have agreed that this new understanding of but-for causation can be transplanted to the other antidiscrimination statutes.[169]

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162. *See supra* Part II.

163. The most common iterations include: motivating factor causation; same action or same decision; but-for causation, commonly associated with *McDonnell Douglas*; the determinative influence formulation and similar determinative factor formulation, often used in cases under the ADEA; the role, cause, and factor formulation, urged by the plurality in *Price Waterhouse*; and the substantial factor formulation from Justice O'Connor's concurrence in *Price Waterhouse*. Katz, *supra* note 17, at 501.

164. RESTATEMENT (THIRD) OF TORTS: PHYSICAL & EMOTIONAL HARM § 27 (AM. L. INST. 2010).

165. *See* Univ. of Tex. Sw. Med. Ctr. v. Nassar, 570 U.S. 338, 352 (2013) ("It is thus textbook tort law that an action 'is not regarded as a cause of an event if the particular event would have occurred without it.' This, then, is the background against which Congress legislated in enacting Title VII."); *see also* Gross v. FBL Fin. Servs., 557 U.S. 167, 176 (2009) ("[T]he ordinary meaning of the ADEA's requirement that an employer took an adverse action 'because of' age is that age was the 'reason' that the employer decided to act.").

166. *Nassar*, 570 U.S. at 352; *Gross*, 557 U.S. at 176; *see* Comcast Corp. v. Nat'l Ass'n of Afr. Am.-Owned Media, 140 S. Ct. 1009, 1014 (2020) ("It is 'textbook tort law' that a plaintiff seeking redress for a defendant's legal wrong typically must prove but-for causation. Under this standard, a plaintiff must demonstrate that, but for defendant's unlawful conduct, its alleged injury would not have occurred.").

167. *Bostock*, 140 S. Ct. at 1739.

168. *Comcast Corp.*, 140 S. Ct. at 1014 (internal quotations omitted).

169. Kelly S. Hughes, '*But-For' Causation Under Bostock*, OGLETREE DEAKINS (June 24, 2020), https://ogletree.com/insights/but-for-causation-under-bostock/ [https://perma.cc/4XRX-76P4] ("In disparate treatment (or 'status discrimination') cases under Title VII, an individual can use either the traditional 'but-for' causation standard or the lesser mixed-motive standard. In Title VII retaliation cases, ADEA cases, § 1981 cases, and others that currently utilize only the 'but-

2. Racial Stereotyping Is "Because of" Race

The Supreme Court has been able to acknowledge that racial stereotypes exist and have harmful effects in other situations.[170] Yet, the jurisprudence regarding racial stereotypes in discrimination law has not been as forthcoming.[171] Courts have rejected Title VII race or national origin claims which could be premised on stereotypes involving hair,[172] hair color,[173] language,[174] dialect,[175] and accent.[176] Some scholars opine that courts do not want to give meaning to the presence of racial stereotypes.[177]

Viewing racial stereotypes as a means of race discrimination ultimately depends on how one defines race. Title VII, even with all of the impact it has had on remedying the effects of past discrimination, fails to define "race."[178] The EEOC has promulgated guidelines for race discrimination, but even as the agency tasked with enforcing all

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for' causation standard, it is worth noting that the standard does not require that the protected characteristic (e.g., age) be the one and only cause of the adverse action.").

170. *See* Buck v. Davis, 137 S. Ct. 759, 776 (2017) ("[The testimony of the doctor] appealed to a powerful racial stereotype—that of black men as 'violence prone.'").

171. *See, e.g.*, EEOC v. Catastrophe Mgmt. Sol., 852 F.3d 1018, 1020–21, 1030 (11th Cir. 2016) (rejecting the racial stereotyping argument and finding the employer's requirement that the prospective employee cut off her dreadlocks to be nondiscriminatory); Eatman v. United Parcel Serv., 194 F. Supp. 2d 256, 262–63 (S.D.N.Y. 2002) (rejecting a *Price Waterhouse*-based argument and finding that an employer's policy deeming dreadlocked hair "unbusinesslike" was not discriminatory).

172. Rogers v. Am. Airlines, Inc., 527 F. Supp. 229, 232 (S.D.N.Y. 1981).

173. *See* Santee v. Windsor Ct. Hotel Ltd. P'ship, No. 99-3891, 2000 WL 1610775, at *3–4 (E.D. La. Oct. 26, 2000) (holding that a Black woman with dyed blonde hair, who was denied employment because her blonde hair violated the hotel's grooming policy banning "extreme" hairstyles, could not establish a prima facie case of race discrimination under Title VII because hair color was not an immutable characteristic and not a protected category under Title VII).

174. *See, e.g.*, Garcia v. Gloor, 618 F.2d 264, 272 (5th Cir. 1980) (holding language was not an immutable characteristic and did not constitute ethnic identity; therefore, an employer's policy prohibiting use of Spanish language did not violate Title VII prohibition against national origin discrimination).

175. *See, e.g.*, Kahakua v. Friday, No. 88-1668, 1989 WL 61762, at *3 (9th Cir. June 2, 1989) (declining to decide whether an employer discriminated against plaintiffs who were allegedly denied positions as broadcasters because of their Hawaiian Creole accent or dialect). *See generally* Jill Gaulding, *Against Common Sense: Why Title VII Should Protect Speakers of Black English*, 31 U. MICH. J.L. REFORM 637, 637 (1998) ("Black English is actually a distinct but equally valid dialect of English, which for historical reasons is largely limited to the African American community.")

176. *See, e.g.*, Kahakua, 1989 WL 61762, at *3 ("We need not decide the specific question of whether . . . [a plaintiff's] accent is a function of . . . race or national origin within the meaning of Title VII.").

177. Eyer, *supra* note 110, at 1066.

178. U.S. EQUAL EMP. OPPORTUNITY COMM'N, DIRECTIVES TRANSMITTAL NO. 915.003, TRANSMITTAL ON THE ISSUANCE OF SECTION 15 OF THE EEOC COMPLIANCE MANUAL 3 (Apr. 19, 2006).

employment discrimination statutes, the EEOC does not explicitly define race either.[179] The agency does use personal characteristics—such as hair, skin color, or facial features—to assist in characterizing what race means, but still without an express definition.[180] Many scholars have attempted to define race, but they all seem to end up at different definitions.[181] One academic in particular, Wendy Greene, said that "historically and contemporarily in America, how one dresses, speaks, behaves, and thinks is also constitutive of race."[182] Even with this background knowledge, when the Eleventh Circuit was tasked with defining race, it maintained that race was only tied to the immutable characteristics of an individual and not the cultural characteristics that emanate from an individual's race.[183]

The Eleventh Circuit's definition has been challenged by state legislatures,[184] the EEOC itself,[185] and scholars.[186] Its restrictive definition only tends to perpetuate the racism that Title VII was drafted to remedy. The interpretation assumes that discrimination should only be actionable when it can be tied to discrete acts which are directly tied to the use of impermissible motives. It does not account for the vastness of

179. *Id.*

180. *Id.*

181. *Compare* Ian F. Haney Lopez, *The Social Construction of Race: Some Observations on Illusion, Fabrication, and Choice*, 29 HARV. C.R.-C.L. L. REV. 1, 7 (1994) (defining "race" as "a vast group of people loosely bound together by historically contingent, socially significant elements of their morphology and/or ancestry"), *and* Camille Gear Rich, *Performing Racial and Ethnic Identity*, 79 N.Y.U. L. REV. 1134, 1142 (2004) ("There is an urgent need to redefine Title VII's definition of race and ethnicity to include both biological, visible racial/ethnic features and performed features associated with racial and ethnic identity."), *with* Greene, *supra* note 3, at 1385 ("Race includes physical appearances and behaviors that society, historically and presently, commonly associates with a particular racial group, even when the physical appearances and behavior are not 'uniquely' or 'exclusively performed' by, or attributed to a particular racial group."), *and* Barbara J. Flagg, *Fashioning a Title VII Remedy for Transparently White Subjective Decisionmaking*, 104 YALE L.J. 2009, 2012 (1995) (suggesting that discrimination on the basis of race might include "personal characteristics that . . . intersect seamlessly with [one's racial] self-definition"). However, there seems to be a general consensus that race is a socio-political classification which is not linked to biological differences.

182. Greene, *supra* note 3, at 1358.

183. EEOC v. Catastrophe Mgmt. Sol., 852 F.3d 1018, 1030 (11th Cir. 2016).

184. CAL. EDUC. CODE § 212.1(a) (2021).

185. *Catastrophe Mgmt. Sols.*, 852 F.3d at 1030.

186. Kenneth Nunn argued that the restrictive definition of race is a function of the state and society to attempt to limit the discussion of racism. Kenneth B. Nunn, *The R-Word: A Tribute to Derrick Bell*, 22 U. FLA. J.L. & PUB. POL'Y 431, 438 (2011). He further stated that the framing of racism as taboo leads to society avoiding discussions about race, racism, and discrimination. *Id.* at 434. This avoidance cannot "advance the interests of people who believe racism still exists, or who believe they are, or have been, victims of racism." *Id.* at 439. Therefore, a restrictive definition of race only further perpetuates the racism that antidiscrimination law is supposed to remedy.

racial identity and its various social meanings.[187] It is hard to rationalize how Title VII strikes out the entire spectrum of employment discrimination based on harmful stereotypes that emanate from *sex*,[188] but the broad spectrum of stereotypes that emanate from *race* are allowed to continue.

A more inclusive definition of race is one that acknowledges shared cultural experiences which manifest themselves as mannerisms, dialect, hairstyles, and many other types of expression that can be tied to one's shared history and ancestry.[189] Defining race in this way makes clear that racial stereotypes associated with race can function to stand in for race. Racial stereotypes can provide social context for adverse employment actions that would otherwise be dismissed as race-neutral decisions. This conception is especially important since the days of explicit racial animus are (mostly) behind us. If society defines race in this way, then it becomes quite clear that discrimination against an individual for manifest stereotypes which inextricably emanate from their racial classification and how they choose to express it is discrimination "because of" race under Title VII.

CONCLUSION

Returning to Kayla, she was fired because of her failure to conform to the office grooming policies relating to her locs. On its face, the employment decision against Kayla appears to be race-neutral, but as this Note argues, such a decision was not simply made based on Kayla's hairstyle. Underlying the decision is the stereotype that an individual wearing locs has an unprofessional appearance. Under a more expansive understanding of race, locs would function to stand in for race, and therefore the stereotype that locs are unprofessional constitutes racial discrimination. If an employer takes an adverse employment action based on racial stereotypes, then any stereotype-laden statements should function as direct evidence of race discrimination within Title VII. The burden should then automatically shift to the employer to prove that race was not the reason for the action.

Under the *Bostock* causation standard, an employer should no longer be able to defeat liability simply by providing evidence that the plaintiff did not conform to the workplace culture. The *Bostock* standard requires

187. INTRODUCTION TO CRITICAL RACE THEORY: THE KEY WRITING THAT FORMED THE MOVEMENT xv (Kimberlé Crenshaw et al. eds., 1995).

188. *See* Bostock v. Clayton Cnty., Ga., 140 S. Ct. 1731, 1754 (2020) (expanding sex discrimination to protect discrimination on the basis of sexual orientation and gender identity).

189. Megan Gannon, *Race Is a Social Construct, Scientists Argue*, SCI. AM. (Feb. 5, 2016), https://www.scientificamerican.com/article/race-is-a-social-construct-scientists-argue/ [https://perma.cc/SA7J-TKKX]; W.E.B. DUBOIS, THE SOULS OF BLACK FOLK 1 (Candace Press 1996) (1903).

changing one thing at a time to determine whether the protected classification was a but-for cause. In Kayla's situation, the employer had at least two factors at play when it made its decision to terminate Kayla: (1) nonconformance to office grooming policies and (2) the racial stereotype that locs are unprofessional. If Kayla's race was instead white, then the assumptions and stereotypes associated with her would change. Locs and other protective hairstyles are fundamentally linked to the African American race. Even if other races wear protective hairstyles, such a choice is not fundamentally tied to those races in the same way as Black individuals. If Kayla's race was different, the underlying stereotype about the professionalism of her hairstyle would change, and there would be no need for Kayla to conform to the workplace culture. Thus, the employment decision changes based on Kayla's race. The fact that a racial stereotype played a role in the decision to terminate Kayla's employment should make the employment decision violative of Title VII.

Racial stereotyping jurisprudence needs to continue to be developed because stereotypes are the most common way that discrimination manifests itself in today's workplaces. The courts should not look at victims of impermissible discrimination and claim that they cannot recover because the employer discriminated against their culture or based on stereotypes rather than discriminating purely on the basis of race. Racial classifications are indistinguishable, and they all have the same detrimental impact on the employee experiencing the discrimination.

THE PRO-CHOICE CASE FOR OVERTURNING *ROE V. WADE*: A NEW CONSTITUTIONAL HOME FOR REPRODUCTIVE RIGHTS

Jordan Grana[*] [**]

Abstract

Reproductive rights, despite their white-hot controversial nature in the last decades of American politics and their life-changing impact on those who are denied such rights, are a constitutional anomaly. More than any other right forced to take shelter with the right to privacy in the Fourteenth Amendment's cramped Due Process Clause, reproductive rights are in danger of losing their federal constitutional protection. This Note posits that pro-choice activists must abandon *Roe v. Wade* and its progeny—not because the cases are wrong, but simply because they are unlikely to survive much longer. Instead, the goal of preserving access to reproductive rights would be better served by playing by the rules of the originalist and textualist games that have come to dominate modern U.S. Supreme Court jurisprudence and by expending political capital on passing the Equal Rights Amendment. This Note presents arguments intended to serve as a template for more effective and productive pro-choice activism.

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* *Editor's Note:* The Author's Note was researched and written prior to the June 24, 2022, decision in *Dobbs v. Jackson Women's Health Organization*. In a controversial move, the U.S. Supreme Court held in *Dobbs* that women have no constitutional right to an abortion. Dobbs v. Jackson Women's Health Org., 142 S. Ct. 2228, 2242 (2022). After *June Medical Services L.L.C. v. Russo* was decided and around the time the Author's Note was written, Justice Amy Coney Barrett was appointed to the U.S. Supreme Court following the death of Justice Ginsburg. Thus, when the Author's Note was written, the Court included Justices Barrett, Alito, Thomas, Gorsuch, Kavanaugh, Sotomayor, Kagan, and Breyer and Chief Justice Roberts. References in the Author's Note to the composition of "the current Court" or "today's Court" concern this list of Justices and do not include Justice Jackson. In *Dobbs*, Justice Barrett joined Justices Alito, Thomas, Gorsuch, and Kavanaugh in the majority opinion that nullified a woman's right to receive an abortion. Throughout the Author's Note, the case law overruled or abrogated by *Dobbs* is indicated by citation in accordance with *The Bluebook*, even though such cases were not overruled or abrogated at the time of writing. Despite *Dobbs* overturning *Roe v. Wade*, the arguments in this Note remain crucial for the future of reproductive rights. In a post-*Dobbs* world, finding a home for reproductive rights is now a necessity—rather than merely an alternative—for pro-choice advocates.

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INTRODUCTION

Reproductive rights are a constitutional anomaly because, unlike their cousins, they have no constitutional home. The rights of freedom of speech, religion, and the press all comfortably share the spacious mansion that is the First Amendment.[1] The various rights of the accused enjoy a cozy home in the Sixth Amendment.[2] The right to bear arms is protected by the Second Amendment, a spacious home that was renovated by modern U.S. Supreme Court jurisprudence.[3] Reproductive rights,[4] however, have no such safe harbor. Rather, they are forced to share an increasingly shrinking and temporary home in the Fourteenth Amendment, awkwardly rooming with the right to privacy incorporated by the Due Process Clause and the government's interest in preserving fetal life.[5] The compromise between reproductive rights and the government's interest in preserving fetal life is not the kind of safe, permanent constitutional abode our other rights enjoy, particularly those concerning bodily autonomy and privacy. Since *Roe v. Wade*, the Supreme Court has tilted this fragile balance in favor of the state's interests consistently.[6] With the appointment of Justice Amy Coney

1. U.S. CONST. amend. I.

2. U.S. CONST. amend. VI.

3. U.S. CONST. amend. II; *see* District of Columbia v. Heller, 554 U.S. 570, 635 (2008) (holding that the District of Columbia's "ban on handgun possession in the home violates the Second Amendment, as does its prohibition against rendering any lawful firearm in the home operable for the purpose of immediate self-defense").

4. For the purposes of this Note, "reproductive rights" means a person's right to choose when and how to reproduce and the right to adequate healthcare and resources to support these choices, regardless of that person's sex or gender.

5. Roe v. Wade, 410 U.S. 113, 154 (1973), *overruled by* Dobbs v. Jackson Women's Health Org., 142 S. Ct. 2228, 2242 (2022).

6. *See* Planned Parenthood of Se. Pa. v. Casey, 505 U.S. 833, 846 (1992) (recognizing a woman's right to have an abortion before fetal viability, so long as it may be obtained without "undue interference" from the state and weakening *Roe*'s trimester framework), *overruled by*

Barrett to the Supreme Court—cementing an originalist majority of Justices—the future of any reproductive rights finding a home in the Fourteenth Amendment, or anywhere in the current U.S. Constitution, is dubious at best. With the grim setting for the future of reproductive rights as a backdrop, this Note sets out an argument for what pro-choice advocates should argue to preserve reproductive rights against originalist judicial theorists.

This Note is divided into three parts. Part I details the compromise made by *Roe v. Wade* and explains that its protection of reproductive rights was doomed from the start. Part I briefly discusses the Supreme Court's holding in *Roe v. Wade*, which laid the groundwork for the future erosion of reproductive rights and provides some examples of this erosion through *Roe v. Wade*'s progeny. Part I also suggests that pro-choice advocates should support overturning *Roe v. Wade* because of its unsustainable compromise and focus their efforts elsewhere.

Part II posits other potential constitutional homes for reproductive rights. In other words, Part II provides alternative provisions in the Constitution that, as is, could offer refuge for reproductive rights. Part II touches on additional arguments that have been made regarding reproductive rights, ultimately focusing on the potential of an Equal Protection Clause case for reproductive rights, as alluded to by the late Justice Ginsburg.[7]

Part III acknowledges the reality that the Constitution, as it currently stands, likely has no permanent home for reproductive rights. Part III analyzes what a constitution with a fully empowered Equal Rights Amendment (ERA) could provide for reproductive rights. Part III explains what impact the ERA would have on the status of reproductive rights in the United States and what an argument relying solely on the ERA's text and an originalist understanding of the ERA would look like. Finally, Part III argues that the ERA would offer a home to reproductive rights as steadfast as many other civil rights enjoy and that this home would withstand scrutiny from even the strictest constitutional originalists.

I. THE INADEQUACY OF *ROE V. WADE*'S COMPROMISE

In *Roe v. Wade*, the Supreme Court considered a constitutional challenge to a longstanding Texas law that made it criminal to "procure

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Dobbs v. Jackson Women's Health Org., 142 S. Ct. 2228, 2242 (2022); *see also* Gonzales v. Carhart, 550 U.S. 124, 168 (2007) (finding that a blanket ban on certain abortion procedures, regardless of fetal viability, is not an "undue burden" on a woman's right to an abortion).

7. *See Gonzales*, 550 U.S. at 172 (Ginsburg, J., dissenting) ("[L]egal challenges to undue restrictions on abortion procedures do not seek to vindicate some generalized notion of privacy; rather, they center on a woman's autonomy to determine her life's course, and thus to enjoy equal citizenship stature.").

an abortion," with the exception of such abortions procured on medical advice.[8] Jane Roe, the plaintiff, brought many constitutional challenges to the abortion law, including challenges under the First, Fourth, and Ninth Amendments.[9] The Supreme Court engaged in an analysis of the common law history regarding abortion that, while interesting, goes beyond the scope of this Note.[10] The Supreme Court only entertained the Fourteenth Amendment argument, characterizing Roe's argument as alleging that the Texas abortion law invaded her right to privacy.[11] The *Roe* majority acknowledged that the Constitution did not expressly mention a right to privacy and analyzed the shaky history of substantive due process rights protected by the Fourteenth Amendment's Due Process Clause.[12] The Supreme Court failed to explicitly state whether it was recognizing this right to privacy as being protected by the Fourteenth Amendment or the Ninth Amendment.[13]

With this weak foundation, the Supreme Court then went on to strike a compromise that would provide only a temporary safe haven for reproductive rights: a woman's[14] right to an abortion, protected by her right to privacy, must be balanced against the state's compelling interest in preserving viable fetal life.[15] In the context of *Roe v. Wade*, that meant establishing a bright line rule. Once the fetus reaches viability, the state's interest in protecting fetal life becomes too "compelling" to respect the woman's right to privacy any longer, and a state may restrict abortions after that "compelling" point but not before it.[16] While *Roe*'s holding no doubt must have felt like some victory for pro-choice advocates at the time—indeed, the Texas law in question was struck down as unconstitutional[17]—the rule gave reproductive rights a home in the Constitution that could not house them forever.

This rule was a short lease for reproductive rights in the Constitution's cramped Fourteenth Amendment, to last only as long as medicine would allow. In 1973, the year *Roe v. Wade* was decided, medicine did not

8. *Roe*, 410 U.S. at 117–20.

9. *Id.* at 120.

10. *Id.* at 132–42.

11. *Id.* at 129.

12. *Id.* at 152.

13. *See id.* at 153 ("This right of privacy, whether it be founded in the Fourteenth Amendment's concept of personal liberty and restrictions upon state action, as we feel it is, or, as the District Court determined, in the Ninth Amendment's reservation of rights to the people, is broad enough to encompass a woman's decision whether or not to terminate her pregnancy.").

14. This Note acknowledges that reproductive rights are important for all people with reproductive capability, including trans men and nonbinary individuals. But, for the sake of simplicity and its main argument, this Note will employ the binary gender terms used in Supreme Court jurisprudence.

15. *Roe*, 410 U.S. at 154.

16. *Id.* at 163–65.

17. *Id.* at 164.

consider a fetus to be viable until the third trimester mark, which is where *Roe* placed the "compelling" point on the interests it was balancing.[18] It has been almost five decades since the *Roe* Court decided the point at which a fetus becomes viable, and medicine has only advanced. In fact, modern advances in neonatal care suggest that fetuses delivered as early as twenty-four weeks may be viable.[19] While the science is unclear on whether this number may change, fetal anatomy places limits on survival before twenty-four weeks.[20] Regardless, it is not necessary to explore the nuances of neonatal medicine to understand the flaws of the *Roe* compromise. The true compelling point of fetal viability occurs a month earlier than the Court determined in *Roe*.[21] In the 1992 case *Planned Parenthood of Southeastern Pennsylvania v. Casey*, the Supreme Court noted that advances in neonatal medicine placed *Roe*'s compelling point at an earlier time during pregnancy.[22] While *Casey* did not ultimately overrule *Roe*,[23] it still sent reproductive rights an eviction notice by making an unsustainable compromise. Under *Casey*, so long as science advances, and there is no reason to doubt it will, reproductive rights will effectively vanish because the right to privacy cannot defeat the state's compelling interest once a fetus attains viability. With this kind of precedent, the Court need only take stock of neonatal medicine at any point in the future and, finding it satisfactorily advanced, further diminish reproductive rights by declaring medicine has shifted the balance further in the state's favor.

It should also be noted that *Casey* imposed more restrictions on reproductive rights than *Roe*. In *Casey*, the Court replaced *Roe*'s trimester framework with the "undue burden" standard for evaluating restrictions on abortion before viability.[24] This standard strikes down an abortion law as unconstitutional "if its purpose or effect is to place substantial obstacles in the path of a woman seeking an abortion before the fetus attains viability."[25] The Court then went on to find that an informed consent provision requiring a person seeking an abortion to be informed about the nature of the procedure at least twenty-four hours before

18. *Id.* at 162–65.

19. *When Is It Safe to Deliver Your Baby?*, UNIV. OF UTAH HEALTH, https://healthcare.utah.edu/womenshealth/pregnancy-birth/preterm-birth/when-is-it-safe-to-deliver.php [https://perma.cc/95KN-BWQJ] (last visited Oct. 28, 2022).

20. Paul Recer, *Age of Fetal Viability Lowered by Full Month Since Roe vs. Wade*, AP NEWS (Apr. 22, 1989), https://apnews.com/article/945ba725bfd4c77e65244f117e43e3e2.

21. *Id.*

22. Planned Parenthood of Se. Pa. v. Casey, 505 U.S. 833, 860 (1992), *overruled by* Dobbs v. Jackson Women's Health Org., 142 S. Ct. 2228, 2242 (2022).

23. *Id.*

24. *Id.* at 837.

25. *Id.*

actually obtaining one was constitutional.[26] The Court also upheld the provision requiring a minor seeking an abortion to obtain consent from their parents.[27] The Court found that neither of these provisions, despite smacking of paternalism and presenting very real obstacles for women, were an undue burden.[28] Using the *Casey* standard, in *Gonzales v. Carhart*, the Court had no problem upholding a federal statute that issued a blanket ban on entire classes of abortion procedures and finding that an inability to receive these procedures was not an undue burden on a woman's access to an abortion, even though medical experts decided the procedures would be the safest ways to perform an abortion.[29] While the undue burden standard has rendered unconstitutional some egregious anti-abortion laws, such as admitting privileges laws which functioned to close half of Texas' abortion clinics, the standard has created short-lived victories at best for pro-choice advocates.[30]

In *June Medical Services L.L.C. v. Russo*, where Louisiana modeled its abortion law on the Texas law deemed unconstitutional in *Whole Woman's Health*, the Court struck down the Louisiana law in a less-than-comforting plurality opinion, weaker than the majority opinion of *Whole Woman's Health*.[31] In a concurring opinion, Chief Justice Roberts pointed out that while he dissented in *Whole Woman's Health*, the weight of stare decisis compelled him to concur in *Russo*.[32] Pro-choice advocates should pay close attention to each of the four dissents by the Justices typically associated with the right wing of the Court. Each Justice dissented on their own grounds and argued either one, or some combination of, the following arguments: a law that shuts down half of all abortion clinics in a state is not an undue burden, the plaintiffs did not have standing to bring their claim, and the Constitution does not afford a home to reproductive rights in the first place.[33] Suffice it to say, the composition of the *Russo* Court reflected skepticism of a constitutional home for reproductive rights.

In light of the case law following *Roe*, it is no understatement to say the compromise of *Roe* has been weakened. There is reason to assume, as crafty legislatures cook up further burdens on abortions that are just shy of being undue, *Roe v. Wade* will be rendered toothless one day. As *Russo*'s varied opinions demonstrate, the undue burden standard wrested

26. *Id.* at 883.

27. *Id.* at 899.

28. *Casey*, 505 U.S. at 899.

29. Gonzales v. Carhart, 550 U.S. 124, 156 (2007).

30. Whole Woman's Health v. Hellerstedt, 136 S. Ct. 2292, 2310–11, 2313 (2016), *abrogated by* Dobbs v. Jackson Women's Health Org., 142 S. Ct. 2228, 2242 (2022).

31. June Med. Servs. L.L.C. v. Russo, 140 S. Ct. 2103, 2112–13 (2020), *abrogated by* Dobbs v. Jackson Women's Health Org., 142 S. Ct. 2228, 2242 (2022).

32. *Id.* at 2133 (Roberts, C.J., concurring).

33. *Id.* at 2142–82.

from the corpse of *Roe* by the *Casey* Court indicates that the Court is but one conservative Justice away from allowing severely restrictive abortion laws, finding them a reasonable burden, and doing away with the current constitutional home for reproductive rights altogether. Despite this, many pro-choice advocates and political campaigns still urge for a return to *Roe*.[34] This is a losing strategy for preserving reproductive rights. To spend political capital and goodwill on maintaining what is a losing status quo is a fool's errand.

This Note's thesis should not be mistaken as a tantrum about the advancement of neonatal medicine. The advancement of medicine is always a good thing. Rather, this Note merely points out that pro-choice advocates need to abandon their support for *Roe*, because it and its progeny are an inadequate protection for reproductive rights. Instead, this Note urges pro-choice advocates to look closely at the analysis in Part II and Part III to understand that there are more effective ways to guarantee the protection of reproductive rights in the Constitution than clinging to the sinking ship—or short lease—of *Roe*.

II. OTHER CONSTITUTIONAL HOMES FOR REPRODUCTIVE RIGHTS

The best argument for another, more permanent constitutional home for reproductive rights was suggested by the late Justice Ginsburg in her *Gonzales* dissent, where she characterized legal challenges to abortion as not seeking to vindicate some privacy right, but to vindicate "a woman's autonomy to determine her life's course, and thus to enjoy equal citizenship stature."[35] While Justice Ginsburg went on to analyze the abortion law at issue in *Gonzales* under the undue burden framework,[36] as *Casey* controlled at the time, her implication is clear. Justice Ginsburg was raising an Equal Protection Clause argument on the grounds that abortion laws, by their very nature, will always unfairly burden women in ways that men will never be burdened. Thus, no matter where the abortion restrictions fall under either *Roe*'s trimester framework or the *Casey* undue burden standard, they will violate the Equal Protection Clause of the Fourteenth Amendment and trigger stricter scrutiny and protection for reproductive rights than the balancing test.

Other authors have explored this argument for reproductive rights in greater detail.[37] If the argument were ever brought before the Supreme

34. Kate Smith, *Biden Pledged to Make Roe v. Wade the "Law of the Land." Abortion-Rights Supporters Want More*, CBS NEWS (Oct. 6, 2020), https://www.cbsnews.com/news/biden-roe-v-wade-law-land-supreme-court-supporters/ [https://perma.cc/2LT4-F854].

35. Gonzales v. Carhart, 550 U.S. 124, 172 (2007).

36. *Id.*

37. Amelia Bailey, *Missed Opportunities: The Unrealized Equal Protection Framework in Maher v. Roe and Harris v. McRae*, 23 MICH. J. GENDER & L. 247, 265 (2016); Laurie A. Watson,

Court, the argument would not improve further than what those authors laid out. This Note takes a more pessimistic view of the success of the Equal Protection Clause argument, not based on the merits of the argument, but whether the Supreme Court would entertain such an argument in the first place. Even the most liberal Justices who entertain broad readings of the Equal Protection Clause have found that discrimination on the basis of gender merely triggers a heightened, intermediate scrutiny standard that falls short of strict scrutiny.[38] In other words, unlike the strict scrutiny that the Equal Protection Clause affords to discrimination on the basis of race, laws that discriminate on the basis of gender need only demonstrate an "exceedingly persuasive justification."[39] While this may seem like a high bar for the government to meet, it is still lower than the strict scrutiny standard. As *Casey*'s chipping away at *Roe*'s stricter protection for reproductive rights indicates, the Court would likely find that the government's interest in preserving fetal life is a powerful interest that should have no trouble withstanding intermediate scrutiny.

Further, some scholars criticize cases like *United States v. Virginia* for straying too far from the original meaning and purpose of the Equal Protection Clause.[40] This view is perhaps best summarized in the words of the late Justice Scalia, an originalist, who announced at a speech at Hastings College of Law that the Fourteenth Amendment does not ban sex discrimination because "[n]obody thought it was directed against sex discrimination."[41] In sum, pro-choice advocates should not hope that a Supreme Court with a right wing majority of originalists would be willing to provide shelter to reproductive rights under the Fourteenth Amendment's Equal Protection Clause after evicting those rights from the Due Process Clause.

There are, of course, other constitutional arguments that can be made to support reproductive rights, but they are weaker than the two described above. For instance, in *Roe*, the plaintiff brought allegations that the abortion restriction at issue violated her First, Fourth, Fifth, Ninth, and Fourteenth Amendment rights, a smorgasbord of constitutional

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Planned Parenthood v. Farmer: Equal Protection – A New Safeguard for Minors' Abortion Rights, 33 U. TOL. L. REV. 481, 496 (2002).

38. *See* Craig v. Boren, 429 U.S. 190, 204 (1976) (applying intermediate scrutiny and finding unconstitutional a ban on the ability of males aged eighteen to twenty to purchase light beer); J.E.B. v. Alabama *ex rel.* T.B., 511 U.S. 127, 135 (1994) (applying heightened scrutiny and finding unconstitutional gender-based discrimination against women in jury service selection).

39. United States v. Virginia, 518 U.S. 515, 531 (1996).

40. Steven G. Calabresi & Julia T. Rickert, *Originalism and Sex Discrimination*, 90 TEX. L. REV. 1, 2–3 (2011).

41. *Id.* at 2 (internal quotations omitted) (brackets in original).

arguments.[42] Although these arguments found some success in concurring opinions,[43] they were unable to carry the majority. There is nothing to suggest that today's Supreme Court, which takes a narrower view of constitutional rights,[44] would be willing to entertain these arguments. These arguments are even less likely to fare well with a Court lacking Justice Ginsburg, so this Note will not delve any further into them, as they would be, at best, an interesting practice question for a first-year Constitutional Law course and, at worse, an exercise in frustration. Rather, this Note urges pro-choice advocates to consider the constitutional argument laid out in Part III of this Note, which should satisfy even staunch originalists and provide a true home for reproductive rights.

III. THE EQUAL RIGHTS AMENDMENT

In April 2020, FX Networks launched its historical drama *Mrs. America* on Hulu.[45] The series tells the tumultuous tale of the 1970s movement to ratify the ERA—a ratification that came within a hair's breadth of success but was ultimately defeated by the rise of the Moral Majority, led by figures such as Phyllis Schlafly and President Ronald Reagan.[46] Befitting its controversial subject matter, the series was met with both critical acclaim and criticism from both sides of the political aisle.[47] More pertinent to this Note, the series reinvigorated public interest

42. Roe v. Wade, 410 U.S. 113, 120 (1973), *overruled by* Dobbs v. Jackson Women's Health Org., 142 S. Ct. 2228, 2242 (2022).

43. *See Doe v. Bolton,* 410 U.S. 179, 211–12 (1973) (Douglas, J., concurring) (discussing the privacy rights protected by the First, Fourth, Fifth, and Ninth Amendments).

44. *Compare Roe*, 410 U.S. at 153 ("This right of privacy, whether it be founded in the Fourteenth Amendment's concept of personal liberty and restrictions upon state action, as we feel it is, or, as the District Court determined, in the Ninth Amendment's reservation of rights to the people, is broad enough to encompass a woman's decision whether or not to terminate her pregnancy."), *with* June Med. Servs. L.L.C. v. Russo, 140 S. Ct. 2103, 2112–13 (2020) (finding Louisiana's abortion statute to be unconstitutional in a fractured plurality opinion), *abrogated by* Dobbs v. Jackson Women's Health Org., 142 S. Ct. 2228, 2242 (2022), *and* Anna North, *What Amy Coney Barrett on the Supreme Court Means for Abortion Rights*, VOX (Oct. 26, 2020), https://www.vox.com/21456044/amy-coney-barrett-supreme-court-roe-abortion [https://perma.cc/GLN6-956P] (explaining that, when Justice Barrett was first appointed, the Justice said that she did not "believe *Roe* will be overturned outright" but made clear that she is "open to reversing Supreme Court precedent if she thinks a previous decision goes against the Constitution").

45. *Mrs. America* (FX Networks broadcast Apr. 15, 2020), https://www.fxnetworks.com/shows/mrs-america [https://perma.cc/KH7J-BNHZ] (last visited Jan. 31, 2021).

46. *Id.*

47. *Emmys 2020: List of Nominations*, VARIETY (July 28, 2020, 8:24 AM), https://variety.com/2020/tv/news/emmys-2020-nominations-complete-list-1234715939/ [https://perma.cc/2VPG-H83X]; Eleanor Smeal & Gloria Steinem, *Why 'Mrs. America' Is Bad for American Women*, L.A. TIMES (July 30, 2020, 6:00 AM), https://www.latimes.com/entertainment-arts/tv/story/2020-07-30/steinem-and-smeal-why-mrs-america-is-bad-for-american-women

in the ERA at a crucial time in the amendment's history: a few short months after its ratification by Virginia, the thirty-eighth state to do so.[48]

However, as of the writing of this Note, there is yet to be a Twenty-Eighth Amendment to the U.S. Constitution. This is due to the differing opinions on the legal impact of Virginia's ratification of the ERA and whether the ERA should be a valid amendment to the Constitution.[49] In brief, Congress set a deadline of 1982 for final ratification of the ERA, but proponents of the ERA argue that the deadline was not binding and the ERA should be part of the Constitution, while opponents argue the opposite.[50] A lawsuit was brought by three state attorneys general but was dismissed in 2021.[51] The lawsuit goes beyond the scope of this Note. Rather, having discussed the difficulties currently facing the ERA, this Note offers an analysis of what safety the ERA may provide to reproductive rights and hopefully incentivizes its lawful recognition. Additionally, this Note proposes that pro-choice advocates should refocus their political capital from preserving *Roe* and instead on promoting the ratification of the ERA, which will provide the constitutional home for reproductive rights that pro-choice advocates desire.

The text of the ERA guarantees that equality shall not be abridged or denied by the United States or any state on the basis of sex.[52] It also provides that Congress has the power to enforce the ERA by appropriate legislation.[53] The Fourteenth Amendment contains a similar enforcement provision in Section Five.[54] In the context of Fourteenth Amendment jurisprudence, the U.S. Supreme Court has found that Section Five fundamentally alters the relationship between the state and federal

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[https://perma.cc/33M2-NM2F]; Ryan Hite, *Phyllis Schlafly Eagles Respond to FX's Mrs. America*, PHYLLIS SCHLAFLY EAGLES (Apr. 15, 2020), https://www.phyllisschlafly.com/liberalism-and-conservatism/u-s-history/phyllis-schlafly-eagles-responds-to-fxs-mrs-america/ [https://perma.cc/TA5R-4AY7].

48. Bill Chappell, *Virginia Ratifies the Equal Rights Amendment, Decades After the Deadline*, NPR (Jan. 15, 2020, 3:36 PM), https://www.npr.org/2020/01/15/796754345/virginia-ratifies-the-equal-rights-amendment-decades-after-deadline [https://perma.cc/VSS4-7ADW].

49. Chappell, *supra* note 48.

50. Sarah Rankin, *Attorneys General Seek Summary Judgment in ERA Lawsuit*, NBC WASH. (Aug. 19, 2020, 8:49 PM), https://www.nbcwashington.com/news/local/attorneys-general-seek-summary-judgment-in-era-lawsuit/2395447/ [https://perma.cc/9LZC-UEMR].

51. *Id.*; Michelle L. Price, *Judge Dismisses Lawsuit by Democratic AGs to Recognize ERA*, AP NEWS (Mar. 5, 2021), https://apnews.com/article/constitutions-lawsuits-virginia-constitutional-amendments-united-states-b1211f0c6643e41a42d44970a114e6c4.

52. *Frequently Asked Questions*, ERA, https://www.equalrightsamendment.org/faqs [https://perma.cc/U7H2-SSL9] (last visited Jan. 30, 2021).

53. *Id.*

54. U.S. CONST. amend. XIV, § 5.

government in the federalist system.[55] Section Five provides Congress with expansive powers that override traditional state interests in order to enforce the provisions of the Fourteenth Amendment.[56] In the universe of Fourteenth Amendment challenges, the Supreme Court has applied the strict scrutiny standard of judicial review only to classifications based on race because, as the originalist argument goes, the Fourteenth Amendment was passed in response to the Civil War, and both its writers and ratifiers only meant for it to apply to deprivations of rights on the basis of race.[57]

Since the ERA includes a provision like Section Five of the Fourteenth Amendment,[58] under current Supreme Court precedent, the ERA would have the same impact on traditional state interests, giving Congress the power to override such interests so long as it is acting pursuant to Section One of the ERA. Accordingly, if the state's interest in preserving fetal life discriminates, either intentionally or inadvertently, on the basis of sex—and it will so discriminate, as cisgender women are the only class of people who are discriminated against by abortion laws—then that state interest can be overruled by federal legislation. However, this argument takes place within the *Roe* framework, still couched in the penumbras of privacy balanced against a state's interest.[59]

If the ERA were ratified, such an argument would be unnecessary. Rather, the ERA's language and presence in the Constitution would provide an argument to satisfy even the strictest textualists and originalists, who are typically opposed to the substantive due process understanding of the Fourteenth Amendment. Accordingly, an argument along these lines—that the ERA legislates the balance of the state's interest in fetal life in favor of the woman's right to privacy—is not needed. To satisfy the current composition of the Supreme Court, a more direct originalist argument is required, and the ERA provides exactly that. This Note's argument now splits into a two-pronged attack with the ERA as its weapon, designed to satisfy the conservative Justices of the Supreme Court. This Note will propose a model originalist argument for reproductive rights under the ERA and then a model textualist argument for reproductive rights under the ERA.

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55. *See* Katzenbach v. Morgan, 384 U.S. 641, 648 (1966) (recognizing that the Fourteenth Amendment granted Congress expanded federal powers to enforce the amendment).

56. *Id.*; U.S. CONST. amend. XIV, § 5.

57. *See* Korematsu v. United States, 323 U.S. 214, 216 (1944) ("It should be noted, to begin with, that all legal restrictions which curtail the civil rights of a single racial group are immediately suspect. That is not to say that all such restrictions are unconstitutional. It is to say that courts must subject them to the most rigid scrutiny."), *abrogated by* Trump v. Hawaii, 138 S. Ct. 2392 (2018).

58. *Frequently Asked Questions*, *supra* note 52.

59. Roe v. Wade, 410 U.S. 113, 152–54 (1973), *overruled by* Dobbs v. Jackson Women's Health Org., 142 S. Ct. 2228, 2242 (2022).

A. *Originalism Model*

To provide a model of what a successful originalist argument for abortion rights under the ERA would look like, this Note examines a case where all Justices, both in the majority or dissent, claimed to write under the mantle of originalism: the famous *District of Columbia v. Heller*.[60] In *Heller*, the Court examined the question of whether a ban on the possession of handguns in the District of Columbia violated the Second Amendment.[61] The crux of the alleged constitutional challenge was whether what Justice Scalia called the "prefatory clause" of the Second Amendment limited the constitutional protection of the right to bear arms, or gun ownership, to service in a militia.[62] The District of Columbia contended that the Second Amendment limits the constitutional protection of gun ownership to guns owned in conjunction with militia service and so the prohibition on handgun possession in the home, unconnected to militia service, was not protected by the Second Amendment.[63] The plaintiff, a District of Columbia special police officer who kept a handgun in his home, argued that the Second Amendment's prefatory clause does not limit the constitutional protection of gun ownership and merely "announces the purposes for which the right [of gun ownership] was codified," meaning the clause stands on its own and provides a constitutional shield against any infringement of gun ownership.[64] Ultimately, the plaintiff's argument prevailed, as indicated in the whopping sixty-three page majority opinion penned by Justice Scalia that provided an exhaustive originalist analysis of the original understanding of the Second Amendment.[65]

The text of the Second Amendment, despite Justice Scalia's neat deconstruction of it into prefatory and operative clauses, was unclear enough to fracture the opinions of the Supreme Court into dueling dissents and a majority opinion—all claiming to have the best reading of the amendment.[66] A text as clear as the Justices claimed it was would not generate such starkly contrasting understandings of its meanings. Fortunately for pro-choice advocates, the ERA suffers from no such ambiguity. The ERA's prohibition on the denial of equality "on account of sex"[67] is unambiguous in comparison to the eighteenth-century grammar of the Second Amendment. What won Justice Scalia the votes of four other Justices, then, was his textualist analysis of the Second

60. 554 U.S. 570, 573 (2008).
61. *Id.*
62. *Id.* at 577.
63. *Id.* at 575–78.
64. *Id.* at 599.
65. *Id.* at 573–636.
66. *Heller*, 554 U.S. at 570.
67. *Frequently Asked Questions*, *supra* note 52.

Amendment—his originalist argument aided in understanding what the ambiguous text of the Second Amendment means.

Justice Scalia provided a sweeping analysis of history and legal authorities contemporary to the Second Amendment in the majority opinion of *Heller*.[68] He provided an array of secondary sources to decipher what the original meaning of the Second Amendment was at the time it was written. He looked at contemporary secondary sources' understandings of what a militia was, examining English legal history and colonial lawyers' writings on the then-nascent Constitution, and ultimately concluded that the Second Amendment was understood to confer an "individual right" to possess firearms, regardless of membership in a formal militia.[69] He perused a collection of state constitutions, written before the ratification of the U.S. Constitution, from states such as Pennsylvania and Vermont that explicitly adopted a right to own firearms for self-defense, reasoning the Second Amendment's constitutionalizing of this right must have included what the citizens and politicians of states like the aforementioned would have understood it to mean.[70] The final leg of his monumental originalist argument is what he called a collection of "postratification commentary."[71] While Justice Scalia, the infamous textualist, often loathed to acknowledge any sort of legislative history when interpreting text (let alone post-enactment legislative history), he distinguished the constitutional provision at issue from the average statute and characterized his argument as an "examination of a variety of legal and other sources to determine *the public understanding* of a legal text in the period after its enactment or ratification."[72] He described this as a "critical tool" of constitutional interpretation and found that decades' worth of legal commentary on the Second Amendment revealed that "virtually all interpreters of the Second Amendment in the century after its enactment interpreted the Amendment as we [the majority] do."[73] In short, because the Founding Fathers who wrote the Second Amendment originally understood it to protect an individual right to firearm ownership, not tied to any militia service, the District of Columbia's handgun ban was unconstitutional.

An argument for reproductive rights using an original understanding of the ERA would play out much the same way as Justice Scalia's argument for gun ownership rights did in *Heller* and should carry the same compelling force on an originalist Supreme Court. The first version of the ERA arose in 1923, on the seventy-fifth anniversary of the Seneca

68. *Heller*, 554 U.S. at 605–35.
69. *Id.* at 592–96.
70. *Id.* at 601–02.
71. *Id.* at 605.
72. *Id.* (emphasis in original).
73. *Id.*

Falls Convention, and was proposed by the National Woman's Party leader, Alice Paul.[74] This version of the amendment, while similar in spirit to today's ERA, had a vastly different text that was ultimately rejected.[75] In 1943, Alice Paul proposed a modified version of the ERA, modeled on the wording of the Fifteenth and Nineteenth Amendments, that contained the same text as the current version of the ERA.[76] The final version of the ERA that was revised and passed by Congress in 1972 kept the same exact language as Alice Paul's 1943 version but added Sections Two and Three to ensure Congress would have the necessary constitutional authority to pass legislation to enforce the equality the ERA was meant to protect.[77]

The addition of Sections Two and Three to the ERA is key to constructing an originalist argument that the public understanding of the ERA contemplated protection for reproductive rights. The 1943 version of the ERA modeled its language on the Fifteenth and Nineteenth Amendments—amendments that ensure the right to vote is not denied on the basis of race or sex, respectively.[78] The Supreme Court has interpreted the text of these amendments to trigger strict scrutiny,[79] and the ERA's adoption of similar language would suggest to an originalist that the writers of the ERA intended the same stringent constitutional protections to attach to the rights it protects. This is a much safer home than *Roe*.[80]

Of course, the next hurdle to convince an originalist judge would be to establish that the text of the ERA was meant to encompass abortion rights. There is significant history to prove this—at least as reliable as the state constitutions and legal commentary Justice Scalia cited in *Heller*. One of the key issues of Phyllis Schlafly's successful anti-ERA campaign was exactly the understanding pro-choice advocates would argue before an originalist judge: the ERA constitutionalizes reproductive rights.[81] Schlafly and her followers, as part of her anti-ERA campaign, fearmongered that the ERA would constitutionalize various women's rights, but most importantly for this Note's purposes, "abortion[s] on demand."[82] The public understanding lens that Justice Scalia discussed in *Heller* as an originalist interpretation of a constitutional amendment,

74. *Equal Rights Amendments (1923-1972)*, HANOVER COLL., https://history.hanover.edu/courses/excerpts/336era.html [https://perma.cc/UBQ4-FGTG] (last visited Nov. 3, 2022).

75. *Id.*

76. *Id.*

77. *Id.*

78. U.S. CONST. amends. XV, XIX.

79. Harper v. Va. State Bd. of Elections, 383 U.S. 663, 670 (1966).

80. *See supra* Part I.

81. Lesley Kennedy, *How Phyllis Schlafly Derailed the Equal Rights Amendment*, HIST. CHANNEL (Mar. 19, 2020), https://www.history.com/news/equal-rights-amendment-failure-phyllis-schlafly [https://perma.cc/5V2S-U7QV].

82. *Id.*

when applied to the ERA, demonstrates that the public understood the ERA would constitutionalize reproductive rights. It was exactly this understanding of the ERA that prevented the amendment's successful ratification by its initial 1979 deadline.[83]

Proponents of the ERA did little to distance themselves from this understanding of the ERA, and contemporary legal commentary suggests this is because of the rights they were attempting to protect with the ERA. Emily Martin, general counsel for the National Woman's Law Center, told the Associated Press in January 2020 that the ERA would enable courts to rule that abortion restrictions "perpetuate gender inequality" and violate the Constitution.[84] The opponents of the ERA have remained consistent, too. The daughter of Phyllis Schlafly, Anne Schlafly Cori, stated that "[a]ny vote for the ERA is a vote for abortion."[85] Cori also described the revitalized interest in the ERA as a way to "shoehorn" abortion rights into the Constitution because of the threat that a conservative Supreme Court would pose to *Roe*.[86]

There is abundant evidence that both the public and legal understanding of the ERA included that the amendment would protect a woman's right to an abortion. At the time of its revision and passage before Congress, the ERA contemplated a sanctuary for reproductive rights not found elsewhere in the law, and the public understanding of the ERA stretches across the political aisle.[87] Accordingly, an originalist approach to interpreting the ERA is the best guarantee for the future of reproductive rights.

B. *Textualism Model*

The originalist argument outlined above, of course, is only the first hurdle to convincing the Supreme Court. A textualist analysis of the ERA must establish that the statute, as written, protects reproductive rights. Fortunately, this is a simple argument with precedent suggesting that it does.

In *Doe v. Maher*, the Superior Court of Connecticut considered the constitutionality of a restriction to funding for abortions under

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83. Alex Cohen & Wilfred U. Codrington III, *The Equal Rights Amendment Explained*, BRENNAN CTR. FOR JUST. (Jan. 23, 2020), https://www.brennancenter.org/our-work/research-reports/equal-rights-amendment-explained [https://perma.cc/7E82-HKUA].

84. Sarah Rankin & David Crary, *Lawmakers Pledge ERA Will Pass in Virginia. Then What?*, AP NEWS (Jan. 1, 2020), https://apnews.com/article/959a29cfbdc59029bba9e97887331f07 [https://perma.cc/QY2X-E47U].

85. *Id.* (internal quotations omitted).

86. *Id.*

87. Eleanor Mueller & Alice Miranda Ollstein, *How the Debate Over the ERA Became a Debate Over Abortion*, POLITICO (Feb. 11, 2020, 5:05 AM), https://www.politico.com/news/2020/02/11/abortion-equal-rights-amendment-113505 [https://perma.cc/PA4F-NZSF].

Connecticut Medical Assistance Program (Connecticut Medicaid).[88] The Connecticut Constitution adopted an equal rights amendment (Connecticut ERA)[89] with similar text to the federal ERA. Its key language, "[n]o person shall be denied the equal protection of the law . . . because of . . . her sex," was crucial to the *Maher* Court's decision that abortion restrictions trigger strict scrutiny and that the restriction at issue did not pass scrutiny because the state restricted the funding for medically necessary abortions only to when a woman's life was endangered.[90] The *Maher* Court reasoned that the abortion restriction discriminated on the basis of sex for three reasons: (1) under Connecticut Medicaid, all medical procedures for males were paid for, but abortions for females (not including the small class of abortions the restriction allowed for) were not, thereby discriminating against women who relied on Connecticut Medicaid to pay for their medical services; (2) all male medical treatments associated with reproductive health and "conditions unique to [the male] sex" are paid for by Connecticut Medicaid but not abortion procedures which are unique to women; and (3) "[s]ince only women become pregnant, discrimination against pregnancy by not funding abortion when it is medically necessary and when all other medical expenses are paid by the state for both men and women is sex-oriented discrimination."[91]

The *Maher* Court's reasoning should apply equally well to the text of the ERA because all three arguments are true under the ERA, too. Focusing on the third argument, since only women require abortions, restrictions on access to those services would deny "equality of rights under law . . . on account of sex."[92] While the text of the Connecticut ERA uses the words "because of" and the ERA uses "on account of,"[93] there is not a significant enough difference for a textualist to arrive at different understandings of the ERA. Looking to one of Justice Scalia's favorite interpretive tools, the dictionary reveals that "because" is defined as "for the reason that."[94] "Account" is defined as "a reason for an action."[95] These definitions essentially mean the same thing, and a textualist analysis of the ERA should play out no different than the Superior Court of Connecticut's analysis of the Connecticut ERA text, including reproductive rights.

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88. Doe v. Maher, 515 A.2d 134, 135 (Conn. Super. Ct. 1986).

89. CT. CONST. art. 1, § 20.

90. *Maher*, 515 A.2d at 158 n.50, 161.

91. *Id.* at 159.

92. *Frequently Asked Questions*, *supra* note 52.

93. *Id.*; CT. CONST. art. 1, § 20.

94. *Because*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/because?src=search-dict-box [https://perma.cc/AC4W-FNQU] (last visited Nov. 3, 2022).

95. *Account*, MERRIAM-WEBSTER, https://www.merriam-webster.com/dictionary/account [https://perma.cc/3TJV-MVVZ] (last visited Nov. 3, 2022).

In addition to the strength that the ERA's modeling after the Fifteenth Amendment lends to the originalist argument for reproductive rights, it is also an important component of a textualist argument and defense of any pro-reproductive rights legislation that would be passed under the power of the ERA.[96] The Fifteenth Amendment contains only two brief sections: Section One forbids the denial of voting rights "on account of race" and Section Two grants Congress the power to enforce the Amendment's provisions by "appropriate legislation."[97]

In the landmark Supreme Court case *South Carolina v. Katzenbach*, the Court examined a challenge to the language of the Fifteenth Amendment,[98] on which the ERA was modeled.[99] In *Katzenbach*, plaintiff challenged the Voting Rights Act of 1965 primarily "on the fundamental ground that [the provisions of the Act] exceed the powers of Congress and encroach on an area reserved to the States by the Constitution."[100] The Court's answer, speaking through Chief Justice Warren, was abundantly clear: because of the language of the Fifteenth Amendment, Congress could employ "any rational means" to effectuate the Fifteenth Amendment's prohibition against the denial of voting rights on account of race.[101] The Court found, citing a mountain of precedent, that Section One of the Fifteenth Amendment's prohibition on the denial of voting rights on account of race was "self-executing" and "has repeatedly been construed, without further legislative specification, to invalidate state voting qualifications or procedures which are discriminatory on their face or in practice."[102] The Court recognized and did not overrule the long-standing principle that a state has "broad powers to determine the conditions under which the right of suffrage may be exercised," but explained that the Fifteenth Amendment simply "supersedes any contrary exertions of state power."[103]

The *Katzenbach* Court went further than merely recognizing the self-executing power of the Fifteenth Amendment's prohibition on racial discrimination. Relying on well-established Supreme Court precedent, the Court explained that the Civil War Amendments shifted the balance of federal power to areas traditionally reserved to the states.[104] In short, Congress can do more than "forbid violations of the Fifteenth Amendment"—so long as Congress does so for a "rational" reason, it

96. *Equal Rights Amendments (1923-1972)*, *supra* note 74.
97. U.S. CONST. amend. XV.
98. South Carolina v. Katzenbach, 383 U.S. 301, 301 (1966).
99. *Equal Rights Amendments (1923-1972)*, *supra* note 74.
100. *Katzenbach*, 383 U.S. at 323.
101. *Id.* 324–29.
102. *Id.* at 325.
103. *Id.*
104. *Id.* at 327.

may pass appropriate legislation to enforce the provisions of the Fifteenth Amendment, beyond its self-executing prohibitions.[105]

Following the mold of Chief Justice Warren's analysis, a textualist analysis of the ERA would provide two important victories for reproductive rights activists. One, the ERA would provide a self-executing prohibition against discrimination on account of sex that disrupts the balance between federal and state power by preventing states from exercising powers that were previously within their domain. Two, the ERA would grant Congress broad power to prevent discrimination on account of sex so long as it does so with a rational basis. Given the forgiving nature of the rational basis test,[106] this would be a potent power indeed.

The self-executing nature of the ERA is found in its language, which forbids "equality of rights under the law" being "denied or abridged" on "account of sex."[107] This language mirrors the prohibition on the denial of voting rights found in the Fifteenth Amendment.[108] While the *Katzenbach* Court did not elaborate on what exactly made the Fifteenth Amendment self-executing, it did provide examples of the Court recognizing it as such, reaching as far back as 1913.[109] There is nothing about the language or history of the ERA that suggests it should be read as anything but self-executing. Therefore, the ERA would serve as a new constitutional vehicle to challenge restrictions on reproductive rights. No longer would reproductive rights activists need to contend with the squishy and frugal *Casey* undue burden standard. The ERA, as a self-executing prohibition on discrimination on account of sex, would immediately present an obstacle for any state seeking to limit or eliminate reproductive rights. Any such restrictions would constitute de facto discrimination on account of sex, considering the disparate impact these restrictions have on a woman's control over her reproductive life compared to a man's control over his reproductive life. Abortion restrictions would be subject to the nearly insurmountable strict scrutiny test, which laws that violate the Fifteenth Amendment are also subjected to, and this protection is far greater than anything the undue burden standard could ever hope to offer.[110]

If the self-executing powers of the ERA prove to be insufficient, the ERA also offers another mechanism for reproductive rights protection.

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105. *Id.*

106. *See* James M. McGoldrick, Jr., *The Rational Basis Test and Why It Is So Irrational: An Eighty-Year Perspective*, 55 SAN DIEGO L. REV. 751, 752–53 (2018) ("The rational basis test as applied by the Supreme Court is such a permissive level of review that it is effectively not judicial review at all.").

107. *Equal Rights Amendments (1923-1972)*, *supra* note 74.

108. *Id.*; U.S. CONST. amend. XV.

109. *Katzenbach*, 383 U.S. at 325.

110. Dunn v. Blumstein, 405 U.S. 330, 342–43 (1972).

Just as the Fifteenth Amendment's provisions grant Congress wide discretion to appropriately enforce the Fifteenth Amendment, the ERA would offer Congress broad powers to protect reproductive rights so long as Congress' enforcement is rational. As discussed above, the *Katzenbach* Court recognized that the Fifteenth Amendment, along with the other Civil War amendments, shifted the balance of federal and state power, granting the federal government the power to intervene in areas where previously the state had ruled as sole sovereign.[111] So too would the ERA grant the federal government the power to intervene in the protection of reproductive rights where, traditionally, states have enjoyed the discretion to regulate with a compelling government interest.[112]

Pro-choice activists, through political advocacy previously unavailable to them, could pressure Congress to provide protections for reproductive rights. A Constitution that included the ERA would severely limit the ability of states to regulate access to reproductive rights. While the societal pressures that gave birth to the ERA were far less disruptive than those that gave birth to the Civil War Amendments, the identical language of the Fifteenth Amendment and the ERA and the choice to model the ERA after the Fifteenth Amendment should demonstrate clear intent to upset the balance between the state and federal government once again. Additionally, history demonstrates that the drafters of the ERA intended to upset this balance in the context of regulating women's rights, including reproductive rights.[113] Accordingly, the ERA's federal protection of reproductive rights through the legislature is another useful tool that should withstand a textualist or originalist attack.

CONCLUSION

This Note operates in a hypothetical future where the ERA can survive its current procedural challenges and go into effect. This Note admittedly presents an optimistic future for reproductive rights, and this Note also concedes that the ERA does not have a straightforward or easy path to being properly ratified. However, the analysis laid out in this Note should make it clear that if reproductive rights activists hope to succeed in a legal world turning to textualism and originalism as the dominant judicial theories, they cannot continue to focus their political capital on keeping *Roe*'s framework in place. The ERA offers the only reading of the Constitution that would satisfy textualists and originalists and would confer upon the federal government the tools to protect reproductive rights and set a baseline safety net that states could not erode in the same way they have under the *Casey* undue burden standard. *Roe* is only a

111. *Katzenbach*, 383 U.S. at 327.

112. Roe v. Wade, 410 U.S. 113, 154, 163–65 (1973), *overruled by* Dobbs v. Jackson Women's Health Org., 142 S. Ct. 2228, 2242 (2022).

113. *See supra* Part III, Section A.

shaky roof over the head of reproductive rights, and its future is uncertain. Rather than fighting a losing battle, pro-choice activists should expend their political energy on pushing for the ratification of the ERA and building a stable, long-lasting home for reproductive rights.