

**AGENDA
TOWN OF JUPITER ISLAND
TOWN COMMISSION MEETING
THURSDAY, JANUARY 9, 2025, 9:00 AM
ISLAND ROOM – TOWN HALL – 2 BRIDGE ROAD**

PLEDGE OF ALLEGIANCE

ROLL CALL

COMMENTS*

Mayor/Commissioner Comments

- a. Town Coffee Update
- b. Commissioner Comments
- c. Agenda Approval (*Note 1pm time certain - Agenda Item 7a*)
- d. Other Comments

Public Comment (Non-Agenda Related)

Public Comment is an opportunity for the Mayor and Town Commissioners to listen to any issue(s) of importance to you. Public Comment is offered at the beginning of our meetings, in the event attendees cannot stay in chamber for the agenda item or meeting duration. If you elect to address an item on today's agenda during opening Public Comment, we ask that you please refrain from re-addressing the item during Public Comment at the agenda item. Residents also may submit comments, at any time, to the Mayor and Commissioners into the public record: THMail@tji.martin.fl.us. (Please email Public Comment at least one business day prior to the meeting to ensure timely distribution to the Mayor and Commissioners.)

NOTE: The Town Commission meeting will recess at 10:00am to conduct a closed-door Attorney Client Session in the Town Hall Conference Room, which is estimated to last approximately one hour, but may continue as long as necessary to conduct the required business. The Town Commission will reconvene once the session has adjourned. Additionally, a closed-door Executive Session pertaining to Collective Bargaining will follow the Town Commission meeting in the Town Hall Conference Room. The Executive Session is estimated to last no longer than one hour, but may continue as long as necessary to conduct required business.

CONSENT ITEMS

1. Consent Agenda

Category A- To be reviewed and approved (as is or as edited) by the Town Commission

- a. Minutes of the December 6, 2024, Town Commission Meeting
- b. Fixed Asset Disposals
- c. Spending Authorization for External Relations Consultant Contract Extension

Category B- Other Informational Materials (No Action Required)

- a. No items in this category this month.*

PRIORITY MATTERS & PRESENTATIONS

2. Comprehensive Plan Discussion
3. Waterfront Setback Line Study Update (*following the Attorney Client session that begins at 10am*)

COMMISSION ACTION ITEMS

4. Resolution No 925 - Announcing Municipal Election 2025
5. Board and Committee Vacancies

ADDITIONAL COMMISSION MATTERS

6. Remote Participation/ Live Stream Capabilities

STAFF REPORTS

7. Town Manager's Report
 - a. Tackling Toxic Algae: The Problem and a Pathway Forward (*Time Certain 1PM*)
 - b. Leaf Blowers*
 - c. Special Event Permits*
 - d. Other Items*
8. Town Attorney Report
 - a. Litigation Update*
 - b. Other Items*
9. Financial Report
 - a. Monthly Financial Report
 - b. Other Items*
10. Building Department Reports
 - a. Building Department Report
 - b. Code Enforcement Report
 - c. Other Items*
11. Public Safety
 - a. Police Activity Report

b. Other Items*

OTHER ITEMS

12. Meeting Dates

- January 23, 2025 - Comprehensive Plan Workshop - 9AM
- January 29, 2025 - Waterfront Setback Line Study Workshop - 9AM
- February 18, 2025 – Town Coffee with Commissioner Taddeo – 9AM
- February 18, 2025 – SMRU / Beach Protection District Meeting – 10AM
- February 19, 2025 – Town Commission Meeting – 9AM
- March 18, 2025 – Municipal Election (3 seats)
- March 20, 2025 – Town Coffee with Mayor Townsend – 9AM
- March 20, 2025 – Beach Protection District Meetings – 10AM
- March 21, 2025 – Town Commission Meeting and Swearing in of newly elected officials

13. Other Items*

** No advanced materials provided*

TOWN COMMISSION

Penny Townsend, Mayor
Marshall Field VI, Vice Mayor
Anne Scott, Commissioner
Patricia Warner, Commissioner
Joseph Taddeo, Commissioner

ADMINISTRATIVE STAFF

Town Manager, Robert Garlo
Town Attorney, Thomas J. Baird
Town Clerk, Kimberly Kogos

TOWN VISION

The Town of Jupiter Island is a barrier island community, between the Indian River Lagoon and the Atlantic Ocean, where the beauty of nature will always dominate the presence of man. Our vision for the future is illustrated by the traditions of the past, formed by a community of caring individuals who, with imagination and heart, have combined the island's beautiful gifts of nature with those of tradition and family. Inherent in the character of the Town are tranquility, seclusion and safety. The residents of Jupiter Island will faithfully endeavor to preserve and nurture their unique community for all future generations

STATE MANDATED STATEMENT

If a person decides to appeal any decision made by the board, agency, or commission with respect to any matter considered at such meeting or hearing, he will need a record of the proceedings, and that, for such purpose, he may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. Any person requiring a special accommodation at this meeting because of a disability or physical impairment should contact the Town prior to the meeting. Please contact the Town Hall, 2 Bridge Road, Hobe Sound, FL 33455, telephone (772) 545-0103.

**TOWN OF JUPITER ISLAND
TOWN COMMISSION MEETING
FRIDAY, DECEMBER 6, 2024**

TIME: Friday, December 6, 2024 – 9:00 AM
PLACE: Town Hall Island Room – 2 Bridge Rd., Hobe Sound, FL
PRESENT: Present were Mayor Penny Townsend, Vice Mayor Marshall Field VI, and Commissioners Anne Scott, Patricia Warner and Joseph Taddeo. Also present were Town Clerk Kimberly Kogos, Town Attorney Thomas Baird and IT Director Bill Sutton.

Mayor Townsend called the meeting to order at 9:00 AM.

PLEDGE OF ALLEGIANCE

ROLL CALL

COMMENTS*

Mayor/Commissioner Comments*

Mayor Townsend read the Town Vision. Chief Ewing provided comments acknowledged the recent tragedy of the loss of three Palm Beach County motorcycle officers in the line of duty. He called for a moment of silence after recognizing each officer.

Mayor Townsend also acknowledged Senator Harrell's bill to protect Jonathan Dickison State Park from development and thanked her for addressing this community concern.

a. Town Coffee Update

Vice Mayor Field provided a review of the Town Coffee and added topics of interest including the importance of working with the new County Commission, invasive wildlife, septic-to-sewer conversion, law enforcement traffic mitigation, and the vacation rental ordinance. It was noted 16 people attended online and 4-5 in person.

b. Commissioner Comments

There were none.

c. Agenda Approval

Mayor Townsend noted the addition of item 4b as well as the workshop minutes added to consent agenda. The shade meeting was also cancelled.

MOTION: Commissioner Taddeo/Vice Mayor Field moved to approve the agenda changes.

ACTION: Motion passed 4-0.

Public Comment (Non-Agenda Related)*

There were none.

CONSENT ITEMS

1. Consent Agenda

MOTION: *Vice Mayor Field/Commissioner Scott moved to approve the consent agenda, as amended.*

ACTION: *Motion passed 4-0.*

Category A- To be reviewed and approved (as is or as edited) by the Town Commission

- a. Minutes of the November 6, 2024, Town Commission Meeting

Category B- Other Informational Materials (No Action Required)

- a. Minutes of the September 11, 2024, Pension Board Meeting
- b. Minutes of the August 15, 2024, Jt. Town/SMRU Defined Contribution Plan Committee Meeting

PRIORITY MATTERS & PRESENTATIONS

2. Martin County Commissioner Ed Ciampi *

Commissioner Warner arrived at approximately 9:15 AM.

Consultant Kelly Layman introduced Martin County Commissioner Ed Ciampi (District 5) and provided some background information pertaining to the recent county election and Commissioner Ciampi's area of responsibility.

Commissioner Ciampi greeted the Town Commission and provided comments pertaining to his positive relationship with the current and prior Town Managers and elected officials. He acknowledged the large-community challenges the current Town Commission faces with small-community/limited resources.

He noted the first matter residents expect and demand tax dollars spent on is Public Safety, followed by environmental issues. He stated that there has been much discussion regarding elite golf courses and noted that some of these development projects seem to be more beneficial than other types of developments. He referred to "rural lifestyle" in Martin County and discussed the golf course developments in the western portion of the county, highlighting some of the benefits of such developments. He also spoke on the imbalance of the county's tax base, specifically referring to residential vs. commercial properties, and spoke on the benefits of increasing acceptable commercial property within Martin County. Finally, he spoke about housing, specifically "essential housing", and provided real-world examples of individuals who need a different type of housing that is not currently available in Martin County, including single, young adult/professional, and senior living.

Vice Mayor Field asked Commissioner Ciampi about septic-to-sewer matters. Commissioner Ciampi explained how the county is working through the conversion of septic-to-sewer and potential grant funds. Vice Mayor Field noted the new lifeguard station on the public beach will need a new septic system.

Commissioner Ciampi referred to the new lifeguard station on the public beach and stated that he supports the Jupiter Island residents pertaining to the architecture of the structure. He referred to the potential traffic

mitigation and stated that he supports the residents in not going forward with projects that would negatively impact the Town.

Commissioner Scott asked about Commissioner Ciampi's reputation of being pro-development and changing the comprehensive plan. Commissioner Ciampi responded beginning with the urban service boundary and how it applies to various development projects. He provided examples of projects that are legally permitted based on the Comprehensive Plan and regulations but are not necessarily appropriate for the proposed location.

He summarized his position by stating that he is not anti-development rather embraces controlling the type of development and supporting appropriate growth. He explained that he must represent all of his constituents.

Commissioner Ciampi expressed a willingness to meet with Commissioners individually.

3. Comprehensive Plan Discussion and Timeline - Kimley Horn

Director Catherine Harding introduced Ali Palmer from Kimley Horn to explain the updated timeline for the comprehensive plan review.

Ms. Palmer stated that the first citizen workshop is scheduled for January, with the first draft of the plan expected by the end of February and a joint workshop planned for April. The second draft of the plan will be transmitted to the State by June, with adoption anticipated in November. She also noted that one-on-one interviews with Commissioners are scheduled.

There was consensus to hold a Comprehensive Plan workshop on January 23 and a Waterfront Setback Line (WFSBL) workshop on January 29.

4. Waterfront Setback Line Workshop & LPA Comments

Director Duchock introduced the summary of comments and questions of the public workshop and LPA meeting. Answers to more technical questions will be provided during the January meeting.

Commissioner Taddeo noted that the Commission needs to discuss policy decisions, and this matter had been discussed during previous meetings. He suggested potential policy decisions and provided an example of, "no new buildable lots on the Island."

Commissioner Scott asked about the process for answering key questions and identifying who would take the lead. She inquired about the policy decisions to be made, the available choices, and suggested surveying the residents. She also questioned what would happen if the ZIP expired before the WFSBL was set. Town Attorney Baird explained that the ZIP could be extended if deemed appropriate. He noted that two ongoing studies are in progress and that reaching a policy decision before finalizing both studies might be premature. However, he emphasized that policy discussions could occur and evolve as the studies progress toward a final decision.

Discussion ensued pertaining to scientific findings and policy decisions.

Public Comment:

Roger Griffin, 45-year resident, stated he is in favor of surveys regarding policy decisions. He noted that election positions will be so noted.

Attorney Jesse Panuccio stated that relying on the science is relevant to what is being studied with specific

data/input points. He stated that policy decisions should be made in advance to guide a consultant. Vice Mayor Field responded that there were no issues with the study until it did not meet Attorney Panuccio's outcomes. Attorney Panuccio respectfully disagreed and provided an explanation.

Commissioner Scott stated that she felt the letter sent by Attorney Panuccio's firm was refreshing as it suggested considering a position instead of demanding a position associated with a threat.

Discussion ensued regarding bringing forward potential policy decisions for the Commission to discuss. Director Duchock stated that staff is able to compile the resident questions and submit potential policy points. Vice Mayor Field suggested that Commissioners should also provide policy decisions to add to the list. Mayor Townsend noted that there are policies already included in the Comprehensive Plan. Staff can collect a list of existing policies and add a list of policy decisions that should be considered based on resident input. Vice Mayor Field emphasized not be prejudicial in this process.

Resident and LPA Member Jim Hauslein, highlighted the importance of addressing the sensitive topic of creating buildable oceanfront lots while preserving the footprint of long-term residents and avoiding non-compliant structures. He stressed the need to consider factors such as property ownership duration and how decisions impact each resident. Vice Mayor Field requested the LPA provide suggested policy decisions for consideration.

Attorney Nick Geissler stated that the purpose of the study was to provide info to residents who apply for DEP permits if they will or will not obtain such a permit. He asked if this position has changed. Mayor Townsend stated this question has been asked and will be considered in the upcoming meeting with the other questions. She emphasized that the upcoming workshops is the opportunity for residents to provide feedback.

Item 4b - WFSBL Additional Services

Director Duchock explained the original proposal and noted changes to the original proposal to include work requested by the Commission, including additional workshops and different map sets than proposed in the original scope of work.

Director Duchock stated that staff is seeking approval of the additional services as detailed in the proposal prepared by CC for a lump sum of \$46,440.00.

Mayor Townsend expressed concern over the total sum of the change order.

MOTION: Vice Mayor Field/ Commissioner Scott moved to approve the additional services for \$46,440.00.

ACTION: Motion passed 4-1, with Mayor Townsend voting in opposition.

COMMISSION ACTION ITEMS

5. Ordinance No. 401 - Alternative Development Standards and the Land Development Regulations
- 2nd Reading

Town Attorney Baird read Ordinance No. 401 by title only:

AN ORDINANCE OF THE TOWN COMMISSION OF THE TOWN OF JUPITER ISLAND, MARTIN COUNTY, FLORIDA, AMENDING APPENDIX A, OF THE TOWN'S CODE OF ORDINANCES WHICH CONTAINS THE TOWN'S LAND

DEVELOPMENT REGULATIONS; PROVIDING FOR THE AMENDMENT OF ARTICLE I, DIVISION 3, SECTIONS 3.01 AND 3.03 REGARDING THE AUTHORITY OF THE BOARD OF ADJUSTMENT AND TOWN COMMISSION; PROVIDING FOR THE AMENDMENT OF ARTICLE III, DIVISION 2, SECTIONS 2.00 B. AND 2.01 C PERTAINING TO USES IN THE A-80 DISTRICT, SECTIONS 3.00 B AND 3.01 C; DIVISION 4, SECTIONS 4.00 B. AND 4.01 C; DIVISION 5, SECTION 5.01 C; DIVISION 6, SECTION 6.00 D AND 6.01 C; DIVISION 7, SECTION 7.00 B AND 7.01 C; DIVISION 8, SECTION 8.00 B AND 8.01 C; DIVISION 9, SECTION 9.01; DIVISION 10, SECTION 10.01; DIVISION 11, SECTION 11.01; PROVIDING FOR THE AMENDMENT OF ARTICLE IV, DIVISION 2, SECTION 2.00 TO ADD A SUBSECTION “D” PERTAINING TO VARIANCES FOR THE INITIAL MEASURING POINT OF A BUILDING, ARTICLE IV, DIVISION 3, SECTION 3.01 PERTAINING TO VARIANCES FOR THE PLACEMENT OF MORE THAN THREE FEET OF FILL ON A PROPERTY, SECTION 3.04 PERTAINING TO SETBACK FOR EASEMENTS AND DRIVEWAYS, SECTION 3.05 PERTAINING TO TENNIS COURT DESIGN AND LOCATION, SECTION 3.06 PERTAINING TO WALLS, FENCES, AND BULKHEADS/SEAWALLS, SECTION 3.07 PERTAINING TO DOCKS AND DUNE CROSSOVERS, SECTION 3.10 PERTAINING TO OFF-STREET PARKING AND SECTION 3.12 PERTAINING TO WIRELESS COMMUNICATIONS TOWERS AND ANTENNAS AND CREATING DIVISION 5, ACCESSORY USES AND ARTICLE 6 REVERSE OSMOSIS PLANTS; PROVIDING FOR AMENDMENTS TO ARTICLE VI, DIVISION 2, PERTAINING TO SIGNS; PROVIDING FOR AMENDMENTS TO ARTICLE IX, DIVISION 2, SECTIONS 2.01 AND 2.02 PERTAINING TO NONCONFORMING STRUCTURES; PROVIDING FOR AMENDMENTS TO ARTICLE IX, DIVISION 4, SECTION 4.00 PERTAINING TO NONCONFORMING USES; PROVIDING FOR THE REPEAL OF ARTICLE X, DIVISIONS 3 AND 4 IN THEIR ENTIRETY; PROVIDING FOR SEVERABILITY; PROVIDING FOR THE REPEAL OF ORDINANCES IN CONFLICT; PROVIDING FOR CODIFICATION; PROVIDING FOR AN EFFECTIVE DATE.

MOTION: *Commissioner Taddeo/ Vice Mayor Field moved to approve Ordinance No. 401 on 2nd reading as presented.*

ACTION: *Motion passed 5-0*

Public Comment

There was no public comment.

6. Ordinance No. 402 - Vacation Rentals - 2nd Reading

Town Attorney Baird read Ordinance No 402 by title:

AN ORDINANCE OF THE TOWN COMMISSION OF THE TOWN OF JUPITER ISLAND, MARTIN COUNTY, FLORIDA, AMENDING CHAPTER 6 OF THE JUPITER ISLAND CODE OF ORDINANCES, ENTITLED “LICENSES AND BUSINESS REGULATIONS” TO CREATE A NEW ARTICLE V ENTITLED “SHORT-TERM AND VACATION RENTALS”; PROVIDING FOR REGULATIONS PERTAINING TO SHORT-TERM OR VACATION RENTALS OPERATING WITHIN THE TOWN; PROVIDING FOR SEVERABILITY;

**PROVIDING FOR THE REPEAL OF ORDINANCES IN CONFLICT;
PROVIDING FOR CODIFICATION; PROVIDING FOR AN EFFECTIVE
DATE.**

MOTION: *Vice Mayor Field/Commissioner Warner moved to approve Ordinance No. 402 on 2nd reading as presented.*

ACTION: *Motion passed 5-0.*

Public Comment

There was no public comment.

7. Lethal Yellowing Contract Renewals

Director Stuart Trent provided background information regarding the ongoing lethal yellowing contracts the Town undertakes to treat 12,000 trees three times annually. He stated this is the final renewal of a three-year contract with two one-year options. Staff recommended approval, with new contracts to be reviewed before the next fiscal year. The program is fully funded in the 2025 budget.

Commissioner Taddeo asked about white fly solutions. Director Trent said research is limited but effective methods exist, including using Safari to treat trees and rotating chemicals to avoid resistance. King Tree Service does not handle treatments but provides consulting.

Public Comment

There was no public comment.

MOTION: *Commissioner Taddeo/ Commissioner Warner moved to approve the one-year contract renewal option.*

ACTION: *Motion passed 5-0.*

8. Waste and Recycling Spending Authorization Request

Director Stuart Trent provided background information pertaining to the Town's ongoing engagement with Coastal Waste and Recycling and explained the staff's request for \$65,000 spending authorization.

Public Comment

There was no public comment.

MOTION: *Commissioner Scott/ Commissioner Warner moved to approve the \$65,000 spending authorization.*

ACTION: *Motion passed 5-0.*

9. Board and Committee Vacancies and Appointments

Mayor Townsend announced each appointment and requested Commission affirmation of the following:

- Ann Jackson - Scholarship Committee
- Deane Blazie - BOA
- Kate Nelson - Vice Chair LPA

She also notified the Town Committee of EB Smith's resignation from the BOA, noting a replacement has verbally agreed.

Commissioner Scott expressed concern over affirming a person to the BOA who she does not know.

MOTION: *Vice Mayor Field/ Commissioner Scott moved to approve the recommendation of Ann Jackson.*

ACTION: *Motion passed 5-0.*

MOTION: *Vice Mayor Field/ Commissioner Scott moved to approve the recommendation of Kate Nelson to Vice Chair.*

ACTION: *Motion passed 5-0.*

Commissioner Scott reiterated her concern about the last-minute nature of Deane Blazie's recommendation.

MOTION: *Vice Mayor Field/ Commissioner Warner moved to approve the recommendation of Deane Blazie.*

ACTION: *Motion passed 4-1, with Commissioner Scott voting in opposition.*

STANDING REPORTS

10. Town Attorney Report

a. Litigation Update*

Town Attorney Baird provided two litigation updates. In the Townsend case, discovery deadlines were extended to allow the Town, now a party to the case, sufficient time to prepare, and the trial was moved to next year. Additionally, mediation for pending WFSBL cases will take place next week, with hopes of reaching a global settlement.

Town Attorney Baird also requested authorization to schedule a shade meeting in January to discuss the pending litigation.

b. Other Items*

Mayor Townsend referred to an open house event and asked staff to prepare a special event ordinance to bring back to the January meeting.

The Town Commission recessed at approximately 11:43 AM.

The Town Commission reconvened at approximately 11:47 AM.

Commissioner Warner inquired about gas leaf blowers and requested staff to bring back information on the Vero Beach action. Director Trent agreed.

Ms. Layman provided two brief updates. First, she noted the Mayor's recent attendance at the Treasure Coast Regional League of Cities and the Florida League of Cities' legislative policy meeting in Orlando, highlighting the significant drive time involved. She reminded the Commission of the annual holiday luncheon on December 18, which will feature the Florida League of Cities president. Second, she updated

on the upcoming Florida Legislative session, which will run from March to May. The House Speaker emphasized avoiding legislation that dictates personal choices, while the Senate President indicated a decline in member projects, encouraging municipalities to seek funding through existing loan and grant programs instead of individual budget line items.

11. Financial Report

a. Monthly Financial Report

Director Mathew Pazanski reviewed the current finance report. He explained the total revenues at \$4.6M and expenditures at \$1.3M. He informed the Commission that the recent Martin County half-cent surtax referendum for conservation and preservation of environmentally significant lands passed. The Town will receive approximately \$100,000 to \$120,000 annually over 10 years, totaling over \$1M. The funds are designated for specific purposes outlined in the County ordinance, and staff will seek Commission approval as needs arise.

Director Pazanski also summarized the reserve rollover funds.

b. Other Items*

There were none.

12. Building Department Report

Director Catherine Harding provided a brief summary of the monthly Building Department and Code Enforcement reports.

a. Building Department Reports

Director Harding provided the November 2024 Building Department report covering October 28 to November 1. During this period, 16 building permits were issued totaling \$256,878,000 in value, with \$32,110 in permit fees collected. Inspectors completed 164 inspections, issued 43 Certificates of Occupancy, and closed 20 old permits. Year-to-date, 180 permits have been issued with a total value of \$72,652,756.

Kimley-Horn is working on revising the Comprehensive Plan and updating land regulations, currently in the information-gathering stage. One IRC meeting was held, but there were no applications or meetings for the Board of Adjustment. With winter season underway, letters were sent to contractors reminding them to adhere to work regulations to maintain peace and quiet.

b. Code Compliance Report

Code compliance addressed 33 issues, including seven construction and landscape maintenance cases, four noise complaints, three property maintenance cases, 11 vehicles in the right-of-way, and two land development violations.

Commissioner Scott asked if there were more code issues on the north end than the south end. Director Harding explained there is a lot of construction occurring at one time on the north end.

c. Other Items*

Ordinances 401 and 402 were passed today.

13. Public Safety

Chief Ewing provided an update on the monthly public safety activity report. He also noted that the Town

has taken possession of the new marine unit vessel which is on display in the parking lot and should be in service within the upcoming week.

a. Police Activity Report

Chief Ewing referred to the speed measuring signs as discussed during the Town Coffee. Chief Ewing suggested purchasing a mobile trailer unit to use on North Beach Road as well as other locations.

Chief Ewing reported 131 service calls in November, two arrests, and no major crimes. Officers recovered 18 kilos of cocaine, worth nearly \$1 million, washed ashore, with patrols continuing for additional packages. Increased offshore immigration activity has been effectively managed by Homeland Security and partner agencies, preventing island landings this year. A man arrested for harassing a chaplain remains in custody on a \$25,000 bond.

Vice Mayor Field asked if there is equipment that may be helpful to enforce near shore activity. Chief Ewing stated that the Sheriff is utilized as well as night vision.

b. Other Items*

There were no other items discussed.

OTHER ITEMS

14. Meeting Dates

- December 12, 2024 – Annual Board/Committee Member & Town Employee Appreciation Luncheon – 12PM
- January 8, 2025 - Town Coffee with Commissioner Scott – 9AM
- January 8, 2025 – SMRU/ Beach Protection District Meetings – 10AM
- January 9, 2025 – Town Commission Meeting – 9AM
- February 18, 2025 – Town Coffee with Commissioner Taddeo – 9AM
- February 18, 2025 – SMRU / Beach Protection District Meeting – 10AM
- February 19, 2025 – Town Commission Meeting – 9AM
- March 18, 2025 – Municipal Election (3 seats)
- March 20, 2025 – Town Coffee with Commissioner Scott – 9AM
- March 20, 2025 – Beach Protection District Meetings – 10AM
- March 21, 2025 – Town Commission Meeting and Swearing in of newly elected officials

Mayor Townsend agreed to host the March Coffee instead of Commissioner Scott.

15. Other Items*

Mayor Townsend highlighted the Treasure Coast Regional League's December 18 luncheon, covering taxes, sovereign immunity, affordable housing, and impact fees, emphasizing collaboration with other municipalities. She also reminded everyone of the Town's holiday luncheon on December 12.

Commissioner Scott noted she would not in be attendance at the holiday luncheon.

Mayor Townsend adjourned the meeting at 12:09 PM.

Respectfully submitted,

Kimberly Kogos, Town Clerk

TOWN OF JUPITER ISLAND

TO : Mayor and Commissioners
FROM : Danielle Losquadro, Senior Accountant
RE : Fixed Asset Disposals
DATE : 12/30/2024



The Town of Jupiter Island's Accounting Policy and Procedure Manual and Florida Statute 274.07 require Town Commission authorization for the disposal of surplus property. Attached is a listing of surplus property that has been identified as obsolete, replaced, lost/stolen, or inefficient. After the Commission's authorization, surplus property will be disposed of in accordance with Town policy and recorded in the Fixed Assets Module. Disposal methods include sale by auction, donation, or scrapping.

January 9, 2025

ASSET INFORMATION

[illegible]

THIRD AMENDMENT TO THE AGREEMENT FOR COMMUNICATION, EXTERNAL RELATIONS & GOVERNMENTAL RELATIONS SERVICES

THIS THIRD AMENDMENT TO THE AGREEMENT FOR COMMUNICATIONS, EXTERNAL RELATIONS AND GOVERNMENTAL RELATIONS SERVICES (the Agreement) is made this 9th day of January 2025 by and between the Town of Jupiter Island, a municipal corporation of the state of Florida, 2 SE Bridge Road, Hobe Sound, FL ("Town") and In Layman's Terms, Inc. ("ILT"), PO Box 2293, Hobe Sound, FL 33475.

WITNESSETH:

WHEREAS, the Town is a municipality and given those powers and authority enumerated by Chapter 166 Florida Statutes and the Florida Constitution; and

WHEREAS, the Town is empowered to enter into contractual arrangements with private corporations or other business entities, or individuals; and

WHEREAS, pursuant to the Agreement, the Town Commission engaged ILT to assist it in preparing town newsletters and to support the town's communications with its residents and utility customers as set forth in the scope of services contained in the original agreement; and

WHEREAS, paragraph 7 of the Agreement authorizes the Town and ILT to amend the Agreement; and

WHEREAS, the Town and ILT have agreed to a first and second amendment to the Agreement to extend its term; and

WHEREAS, Town Manager has recommended that the Town Commission amend the Agreement to extend its term to October 31, 2025.

NOW THEREFORE, the Town and ILT in consideration of the benefits flowing from each to the other and for other consideration do hereby agree as follows:

Section 1. The recitals are incorporated herein.

Section 2. The Agreement is hereby amended and shall expire on October 31, 2025.

Section 3. The Town Manager is authorized to execute the Third Amendment to the Agreement on behalf of the Town.

(continued on next page)

IN WITNESS WHEREOF, the parties hereto have made and executed this Third Amendment to the Agreement as stated above.

ATTEST:

TOWN OF JUPITER ISLAND

By: _____
Kimberly Kogos, Town Clerk

By: _____
Robert Garlo, Town Manager

IN LAYMAN'S TERMS, INC.

By: _____
Kelly A. Layman

#5960385 v1 18270-00002

DID YOU HEAR?

JUPITER ISLAND IS UPDATING ITS COMPREHENSIVE PLAN

WHAT IS A COMPREHENSIVE PLAN?

A comprehensive plan is a blueprint for the future that results in bold visions and long-term decision-making. Comprehensive plans are the policy foundation for local planning and land use decisions. The plan will be organized by “elements,” or sections, that address specific topics that provide a framework for the Town’s development.

WHY IS THIS HAPPENING?

The Town is updating its comprehensive plan to account for changes which have occurred since the last update in 2016, reflect changes in state law, and to comply with the state requirement that the plan be updated every seven years. It is important that we undertake this process to guide visionary growth and development through 2045.

WHO IS INVOLVED?

The comprehensive plan is being collaboratively developed with the talent of the Town of Jupiter Island staff and Kimley-Horn. Kimley-Horn will work hand in hand with Town staff to complete this project. **Input from residents and other government agencies is essential to ensure the plan addresses current challenges and opportunities through updated goals, objective, and policies.**

ELEMENTS INCLUDED

- Property Rights
- Housing
- Capital Improvements
- Recreation and Open Space
- Land Use
- Infrastructure
- Transportation
- Coastal Management
- Conservation
- Intergovernmental Coordination

Community Workshop

Join us to share your vision for 2045

The workshop will be an open house format, so please drop in and let us know your thoughts!



January 23rd, 2025 at 9 AM



Commission Chambers, Jupiter Island Town Hall, 2 Bridge Road



TOWN OF JUPITER ISLAND

MEMORANDUM

TO: Mayor & Town Commission

THROUGH: Robert Garlo, Town Manager *RG*

CC: Kimberly Kogos, Town Clerk

FROM: John Duchock, Asst. Town Manager/Beach District Director

RE: Agenda Item 3.: Waterfront Setback Line Study

DATE: 12/20/2024

Background:

Public comments and questions concerning the waterfront setback line study, along with a summary of the key comments and questions arising from the Local Planning Agency meeting held on November 25th are provided below. Responses to questions are presented by Town staff where appropriate. Included in this memo is a summary of the potential changes to conformity for existing homes on the island as a result of the preliminary shifts in the waterfront setback line as presented by Cummins Cederberg during the December 6th Town Commission meeting.

The Town continues to take questions and comments on the study. A second public workshop has been scheduled for January 29, 2025, beginning at 9:00 at Town Hall. A second LPA meeting to consider a draft waterfront setback line map has been proposed but not scheduled.

Public Comments and Questions:

- Why is the town re-evaluating the line before the current litigation is resolved? **The waterfront setback line study was initiated as a result of an administrative challenge to a Florida Department of Environmental Protection (FDEP) Coastal Construction Control Line (CCCL) permit under Florida Statutes, Chapter 120. The result of the challenge was an Administrative Law Judge order recommended denial of a permit on the basis that the applicant did not demonstrate through a preponderance of evidence that the proposed structure would not be located on the frontal dune. This denial brought to question the location of the Town's waterfront setback line and the criteria for the line with respect to dunes and erosion. The focus of the new study was to ensure that the waterfront setback line would be in line with the FDEP's CCCL program for protection of the frontal dune and location of proposed buildings relative to the State's 30-year erosion projection.**
- What are the implications for the changes of any of these lines from the 2000 line on growth and density of the island? **The location of the waterfront setback line (rear yard setback) alone does not control growth and density of development on the island. The Town's zoning code sets density and, when combined with setbacks (front yard, rear yard, and side yard), controls the location and footprint of development.**

- Are new building lots being created, effectively new rights being granted, and if so, how many? **Lots for new construction or redevelopment are not created as a result of the location of a setback line. Lots are fixed as platted and recorded. Footprints for construction on any property without a variance are determined through the application of setbacks. Variances from front yard, rear yard, and side yard setbacks may be granted by the Town.**
- Even if the county and town are willing to renourish the town's beaches, how can the town assume sand will be available for 30 years when it has been said that the offshore sand supply may only be available for 21 years? **While there is not an infinite supply of sand offshore, the amount of sand available to the Town for future beach nourishment projects is not limited to 21 years. The FDEP used an estimate of 21 years based on the amount of sand located in the Town's active borrow site at the time of the estimate. This does not take into account volumes of sand being placed into the borrow site by Martin County as part of the ongoing inlet dredging. It also does not take into account other potential borrow sites that may be permitted for use by the Town in the future.**
- Is this economically and politically rational to assume sand would be available? **Not addressable by Town staff.**
- How does this sand replenishment assumption impact the location of the lines in the consultants' model, and by assuming the sand is effectively supplied in perpetuity are the lines being artificially pushed further east towards the water in an unsustainable and reckless fashion? **Continued beach nourishment was not assumed to occur in the consultant modeling efforts. Modeled projections of erosion and losses were based on the current beach conditions through the use of the most recent surveys of the Town's beaches. The models projected impacts to the existing beach under a range of storm intensities (25-year storm, 100-year storm) and sea level rise scenarios. This approach avoids artificially forcing the shoreline and potential erosion impacts when assessing the location of the waterfront setback line.**
- How can residents participate in a similar informed discussion today? **Residents are invited to continue to provide input through e-mail (setbackline@tji.martin.fl.us) and through participation in the Town Commission meetings, as well as the upcoming public workshop on January 29, 2025.**
- Would the town please consider continuing this important discussion when more residents are present on the island? **Discussions are ongoing and will continue to allow for more resident participation.**
- Why wasn't the fifth line included, i.e., the Coastal Construction Control Line, that is established by the Florida DEP? **The CCCL General Permit Line was included as one of the criteria in assessing the potential location of the waterfront setback line. The Coastal Construction Control Line is a regulatory jurisdiction line established in Martin County by the State of Florida for permitting purposes. It generally represents the landward limit of a 100-year storm event, as projected by the State. The waterfront setback line study also modeled projections of a 100-year storm event. Both the CCCL and the modeled projections of the 100-year storm events fall well landward of nearly all existing residences along the ocean. The Town Commission considered this during the November 6th Commission meeting and decided to remove the 100-year storm event criteria from consideration as it would have wide reaching impacts on the conformity of those existing residences.**
- Why wasn't the pre-2019 setback line included on the maps? If the plaintiffs win the notice lawsuit, then wouldn't the 2019 line would be null and void, and the line revert to the pre-2019 position? **Shouldn't a decision on relocating the line wait until the resolution**

of the lawsuit? **The scope of work did not consider the 2000 line. The issues relating to ongoing litigation are not addressable by Town staff.**

- In light of climate change, sea level rise, and the increasing ferocity of storms and hurricanes, shouldn't the Town be interested in locating the line farther from the ocean than the pre-2019 setback line? **As part of the study, the effects of sea level rise were applied to projections of erosion for a 25-year and a 100-year storm event. Related impacts of climate change, including changing storm intensities and frequencies, cannot be quantified or predicted. The potential increase in impacts to the Town caused by climate change may be advanced in the future as a policy discussion by the Town Commission.**
- Does the Town have a process for ensuring that the setback line meets the standards of the Comp Plan? **The Town's Comprehensive Plan presents the vision of the Town along with critical planning elements that guide the Town toward fulfilling goals, objectives, and policies. It is the goals, objectives, and policies that help establish the framework for Land Development Regulations in the Town's Code of Ordinances. The Town has initiated an update of the Comprehensive Plan and through that update the Town may refine existing or create new goals, objectives, and policies that guide development setbacks moving forward.**
- The methodology for selecting the criteria appears to be based on the assumption that FEMA will continue to fund beach renourishment. Is it reasonable to expect that taxpayers will continue to subsidize beaches for billionaires indefinitely? **It is not practical to plan for or try to predict FEMA funding for future beach nourishment activities. The selection of the waterfront setback line criteria was not dependent upon any assumptions on FEMA funding or the continuation of beach nourishment by the Town. The reasonableness of future funding through any revenue source (FEMA funding, Town Ad Valorem, State grants, or other) is not addressable by Town staff.**
- There are several areas where there are substantial shifts of the line toward the ocean (e.g. the 96ft east shift at R-108) that appear to create new building sites. Is that correct? If so, how many new building sites would be created with the proposed line and where are they located? **Potential shifts toward the ocean near R-108 would expand the footprint for new potential development without a variance per the Town's code. An analysis of changes to development footprints will be conducted following direction on the location of the waterfront setback line by the Town Commission.**
- Is there a way to have ONE weighted line that extends the entire island? For example, using 80% weighting of the LOC, with 20% weighting of the CCCL-GP.... Or something like that? **Because the approach to mapping the line relies on evaluating each of the mapping criteria along the full length of the island, a pre-determined weighting should not be applied.**
- Why fund four setback line studies? What was wrong with the first three studies? **The current waterfront setback line study was initiated as a result of an administrative challenge to a CCCL permit resulting in the denial of that permit on the basis that the proposed structure would not be located on the frontal dune. The focus of the study was to ensure that the Town's waterfront setback line would not run in conflict with permits issued by the State.**
- Why does the new waterfront setback line only effect/prohibit homes at 210, 306, 322, and 332 South Beach Road? What about 41, 51, 67, 73 and 103 North Beach Road? **The ongoing waterfront setback line study addresses the entire length of the Town's beach shoreline and does not result in a prohibition of homes at any location. The waterfront setback line is the Town's rear yard setback line which combines with the**

front yard and side yard setbacks to establish the footprint for development on a property without the need for a variance from the requirements of the Town's code.

- Who pays for the \$ when the residents of Jupiter Island are sued for \$61 million dollars because the commissioners are prohibiting owners to build on 210, 306, 322, and 332 South Beach Road via use of the WFSBL? **Not addressable by Town staff.**
- I would like to see the line before it was moved in 2019 1985? Did you go back 30 years? **The waterfront setback line did not exist 30 years ago or in 1985 (39 years ago) and was first mapped in 2000. Prior to 2000, the Town's code applied five criteria on a property-by-property basis to determine the rear yard setback (waterfront setback).**
- What is the purpose of these studies? It seems like they will be a tool for changing policy. Do we want to change policy? **The primary focus of the current waterfront setback line study is to ensure that the setback line is not in conflict with the frontal dune and 30-year erosion criteria applied by the FDEP for a CCCL permit. Changes to Town policy are not addressable by Town staff.**
- The presentations are too complicated and need to be simplified without using jargon. The maps are overwhelming and hard to figure out. Maybe focus on one stretch of beach to clearly talk about each line. **Future presentations will provide information in a simple, clear, and succinct manner for public review and consideration.**
- Why would the Town set a line other than the DEP and CCCL? **The CCCL line does not take into consideration the Town's Land Development Regulations. They are regulatory jurisdiction lines that do not directly relate to how the Town reviews development applications.**
- The current waterfront setback line discussion could benefit from the inclusion of additional relevant information. For example, data sets or lines reflecting NOAA's future projection curves for sea level rise; identifying current and future coastal vulnerabilities to public infrastructure (road, water, sanitary, electric, etc.) relative to coastal flood hazards, high tide flooding, and storm surge (SLOSH). Are those being considered? If not, why? **Sea level rise, following NOAA's projections, were incorporated into the modeled erosion impacts of a 25-year and a 100-year storm event. The modeling approach is similar in nature to the referenced considerations. Independent of the waterfront setback line study, the Town is undertaking a Town-wide vulnerability assessment which will identify critical public infrastructure that may become vulnerable over time due to sea level rise. This will be covered in more detail during future Town Commission meetings.**
- How you have incorporated the town vision and comp plan into their criteria. Specifically.... How are the current set of criteria and preliminary lines DIFFERENT than what would be had you created them for Palm Beach or Miami or Vero Beach? Since our town has different priorities than most municipalities, it would be helpful for us to understand how our priorities are reflected in the work. **The Town vision and comp plan are not incorporated into the criteria for the waterfront setback line. Currently, there are no goals, objectives, or policies in the Comp Plan that would direct the location of the waterfront setback line. The Town's Comprehensive Plan presents the vision of the Town along with critical planning elements that guide the Town toward fulfilling goals, objectives, and policies. It is the goals, objectives, and policies that help establish the framework for Land Development Regulations in the Town's Code of Ordinances. The Town has initiated an update of the Comprehensive Plan and through that update the Town may refine existing or create new goals, objectives, and policies that guide development setbacks in the future. The criteria developed for the waterfront setback line study do not reflect conditions in Palm Beach, Miami, or Vero**

Beach. For example, Palm Beach's ocean setbacks are based on an established seawall line and a lesser offset from dunes than what the Town has implemented.

- What authority establishes the five lines recommended as criteria for establishing the Town's setback line? How often are these lines reevaluated or modified? Instead of establishing a static line, could the Town establish a method for defining the line based upon the location of the criteria lines at any point in time? Wouldn't this method avoid the need to conduct periodic studies, which are time-consuming and expensive? **Outside Town Commission acceptance/rejection of staff/consultant recommendations, there is no authority that establishes the criteria for the setback line. A range of criteria have been historically used by the Town. Those have been reviewed by the Town over time and have been again reviewed during the ongoing waterfront setback line study for applicability and suitability in locating the setback line. The waterfront setback line was originally established in 2000, was revised in 2019, and is being restudied today. A static line is required in order to reflect the waterfront setback line accurately on a survey. Dynamic changes to the line would cause confusion and generate questionable reliability of location during the Town's permitting process.**
- During the waterfront setback line discussion at the November 25 LPA meeting there were concerns expressed about setback line changes that would restrict the rights of homeowners to build on their properties. What about the property rights of the neighbors whose beach views would be obstructed by newly permitted structures, not only limiting their enjoyment but also reducing the value of their properties? **The concerns regarding development on neighboring properties is appreciated, however, the Town cannot limit property rights in order to preserve views (there is case law supporting this).**

LPA Comments and Questions (November 25, 2024 meeting):

- What conditions does the CCCL create in terms of a buildable structure? **The CCCL is a regulatory jurisdiction line set by the FDEP. The conditions for construction seaward of the CCCL are set in Florida Statute Chapter 161, Section 53. The conditions that govern the location/size/type of buildable structure are reviewed by FDEP with a focus on avoiding construction on the frontal dune that would be disruptive to the beach and dune system; keeping development landward of a 30-year erosion project; and, requiring the application of the Florida Building Code for structures (finished floor elevations, pile construction, etc.).**
- Why not use the CCCL as the WFSBL? **The CCCL line does not take into consideration the Town's Land Development Regulations. They are regulatory jurisdiction lines that do not directly relate to how the Town reviews development applications.**
- Did the consultant refer to the Comprehensive Plan and Town Vision in the recommendation? **The Town vision and comp plan are not incorporated into the criteria for the waterfront setback line.**
- Was beach renourishment considered in making the recommendation? **Continued beach nourishment was not assumed to occur as part of the consultant's recommendations.**
- Has the Town reviewed the number of homes that would become nonconforming and vice versa? **This has been reviewed and a summary of conformity changes is presented below.**
- There seems to be more comfort with westerly shifts versus the easterly shifts, especially considering erosion. Is there a way to logically limit or justify not moving the line further east than it already is? **Not addressable by Town staff.**

Summary of potential changes to conformity of existing residences:

Remains Non-Conforming	Remains Conforming	Becomes Non-Conforming	Becomes Conforming
33	97	42	6

Recommendation:

Town staff is seeking direction from the Commission on: 1) the final list of criteria to be used to develop the preliminary setback line maps; and, 2) confirmation that the setback line is to be mapped following the most landward of the final list of criteria.

RESOLUTION NO. 925

A RESOLUTION OF THE TOWN COMMISSION OF THE TOWN OF JUPITER ISLAND, MARTIN COUNTY, FLORIDA, SETTING THE DATE FOR THE GENERAL MUNICIPAL ELECTION AS TUESDAY, MARCH 18, 2025 FOR THE PURPOSE OF ELECTING TWO (2) COMMISSION MEMBERS EACH FOR A FOUR-YEAR TERM AND ONE (1) COMMISSION MEMBER TO FILL AN UNEXPIRED TERM; AND TO ALLOW FOR THE TOWN TO CANVASS THE TOWN'S ASBENTEE BALLOTS; AUTHORIZING THE MARTIN COUNTY SUPERVISOR OF ELECTIONS TO TABULATE THE BALLOTS CAST IN ELECTRONIC FORMAT AND TO CERTIFY THE RESULTS OF THE GENERAL MUNICIPAL ELECTION, MARCH 18, 2025.

WHEREAS, Section 4.1 of the Town Charter has established the Town of Jupiter Island General Municipal Election date as the third Tuesday in March in each year that any Commissioner's full term is set to expire; and

WHEREAS, in 2025 the terms of two (2) Town Commissioners are set to expire; and

WHEREAS, the Town of Jupiter Island is setting the General Municipal Election date as Tuesday, March 18, 2025, for the purpose of electing two (2) Town Commissioners each to have a four-year term and one (1) Town Commissioner to be elected to fill an unexpired term of a two-years; and

WHEREAS, The Town of Jupiter Island will canvass all absentee ballots for the March 18, 2025 General Municipal Election; and

WHEREAS, the Town Commission of the Town of Jupiter Island is authorizing the Martin County Supervisor of Elections to tabulate the ballots cast in electronic format for the Tuesday, March 18, 2025 General Municipal Election; and

WHEREAS, the Town Commission of the Town of Jupiter Island is authorizing the Martin County Supervisor of Elections to certify the election results for the Tuesday, March 18, 2025 General Municipal Election.

NOW, THEREFORE BE IT RESOLVED BY THE TOWN COMMISSION OF THE TOWN OF JUPITER ISLAND:

Section 1. Notice is hereby given that Tuesday, March 18, 2025, is the date set as the General Municipal Election for the Town of Jupiter Island, Florida for the purpose of electing two (2) Town Commissioners each to have a four-year term and one (1) Town Commissioner to fill an unexpired term of two-years.

Section 2. The Town of Jupiter Island will canvass all absentee ballots for the March 18, 2025, General Municipal Election.

Section 3. The Martin County Supervisor of Elections is authorized to tabulate the ballots cast in electronic format and certify the Election results for the March 18, 2025, General Municipal Election.

THIS RESOLUTION IS DULY PASSED AND ADOPTED THIS 9th DAY OF JANUARY 2025.

TOWN OF JUPITER ISLAND

Mayor

Vice Mayor

Commissioner

Commissioner

ATTEST:

Town Clerk

Commissioner

Deane Blazie

Board of Adjustment

Deane Blazie has been a resident of Jupiter Island since 1990 and became familiar with the Board of Adjustment process when he applied for a variance from the Town for his previous home at 161 North Beach Road. Mr. Blazie has served on the Board of the Jupiter Island Residents Association for approximately 12 years and is currently serving another term. He also served on the Town's Beautification Committee for several years.

Professionally, Mr. Blazie is the President of Blazie Engineering, an Engineering-Computer Consulting Firm. He designed and currently markets the Braille 'n Speak, a highly successful pocket-sized computer for the blind, as well as other computing devices for the visually impaired.

Mr. Blazie has been the recipient of numerous honors and awards including the Johns Hopkins First National Search for Devices for the Handicapped, one of the Ten Outstanding Men in America (1976), Outstanding Federal Employee Award, U.S. Senate Productivity Award, and locally the Charles Kane Award for the Martin County Council on Aging Kane Center.

Truman Hobbs
Board of Adjustment

Mayor Townsend,

I would be honored to serve our community on the Board of Adjustment. I was a practicing attorney for 17 years and handled several matters for clients before state administrative agencies although my practice was focused on litigation issues. The last 17 years or so of my legal career were spent as a trial court judge in Montgomery, Alabama where I learned that you have to make a decision promptly and impartially, and live with the result. One side of a dispute will think you are the resurrection of Solomon while the other litigant believes you to be a fool or corrupt or both. I was not corrupt.

Thank you for your consideration.

Yours truly,

Truman Hobbs

MEMORANDUM

TO: Robert Garlo, Town Manager 

FROM: Bill Sutton, Director of Information Technology 

RE: Streaming Services

DATE: 10/29/2024

The vision for the Town website encompassed both the ability to live stream events and to enhance accessibility to public meeting information and recordings. As part of that project, the Civic-Clerk module was purchased. The Civic-Clerk module ensures that meetings are available to the public both live and on demand, as well as providing easy access to agendas and meeting materials. The recordings are indexed to the agenda, allowing residents to locate and view discussions on specific topics of concern without scrolling through hours of video.

Over the past few months, the Town IT department has implemented and tested this format with great results. The new streaming platform has clearer audio and video coupled with greater stability. The live stream and recordings are much easier to access, enabling residents and the general public to view meetings from any location, on any device, at any time. This ensures transparency without requiring technical participation.

The implementation of this platform with the provision for pre-submitted public comments offers a balanced approach that ensures transparency, accessibility, and effective public input. This method not only enhances the efficiency of meetings but also ensures that residents' voices are heard and considered in a structured and meaningful way. By fully adopting this approach, we can maintain the integrity of Town meetings while fostering an inclusive environment for public participation.

MEMORANDUM

TO: Mayor & Commissioners
 FROM: Kelly Layman, Legislative & External Relations Consultant
 THROUGH: Robert Garlo, Town Manager
 DATE: December 30, 2024
 RE: Petition to the U.S. Environmental Protection Agency
 regarding toxic algae as a human health hazard



Several of you expressed interest in hearing more about the active Petition pending before the U.S. EPA that, if granted, starts a regulatory process by which cyanobacteria/toxic algae would be classified as a human health hazard. I mentioned the existence of this Petition several months ago when fielding a question on a related topic.

I have secured the lead attorney, Jason Totoiu, Esq., to present a brief PowerPoint at your January 9 meeting. The Petition pending before the U.S. EPA is attached (without exhibits). As you can see, there are multiple Petitioners. The list is comprised of well-known entities that have worked for decades on attempting to prevent or reduce what continue to be devastating effects and harm caused when cyanobacteria is present in water released from Lake Okeechobee into Martin County and many other communities across Florida.

It made sense to hear first from the South Florida Water Management District's Executive Director (which occurred at your October meeting), as to its capital infrastructure projects being done north of Lake Okeechobee that will assist in mitigating the pollutant load into Lake Okeechobee. *However, polluted water will continue to be released from the Lake O dike — a process controlled by the U.S. Army Corps of Engineers — in order to attain certain lake levels in a complicated construct based on rain and user demands.* Toxic water releases ("pulses") typically are pushed out simultaneously from dams and locks on the west side of Lake O (with the pollutant load traveling the Caloosahatchee River to the Gulf of Mexico) as well as the east side of Lake O (with the pollutant load traversing the St. Lucie River, Indian River Lagoon, and Intracoastal Waterway).

The SFWMD is pursuing more water quality and restoration-related projects from Orlando south, and through the Kissimmee River basin, which dead-ends into Lake Okeechobee. However, it is clearly evident to all parties that these Lake O releases will continue to occur and thus will continue to damage the health of the estuarine rivers, the environment, the wildlife, and all marine resources. Salinity imbalances alone are a "shock" to the ecosystems, often resulting in fish kills en masse. In addition, there have been many documented cases of human medical incidents, including chronic respiratory issues, as toxic algal blooms linger in local waterways. Many domestic pets have died after coming into contact with the noxious waters.

Please note that Mr. Totoiu will address the *strong bipartisan history* and current political atmosphere for issues within the Petition, *including groundwork that dates back to favorable rulings during the first Trump administration.*

Mr. Totoiu's employer, the Center for Biological Diversity, was founded 35 years ago and handles approximately 70 pending lawsuits in any given year nationwide, mostly in federal court — in addition to hundreds of petitions, administrative challenges, and appeals. Mr. Totoiu has personally handled dozens of environmental matters for the Center before agencies and courts in WV, NC, VA, KY, FL, MS, and LA.

A final note: Just days ago, the U.S. EPA issued a landmark rule banning trichloroethylene (TCE) and perchloroethylene (PERC), two widely used industrial solvents associated with significant health risks, including both cancer and neurological damage. That ruling was finalized under the Toxic Substances Control Act and marks a pivotal step in public health protection. I have attached a brief overview of this historic new rule.

Consultant's comments:

There is no cost to the Town should the Commission choose to lend its voice in support of this Petition, in the form of a simple letter signed by all 5 Members. This action would build on the Town's history of conservation-minded advocacy for natural resources. Such a letter would cite that the entire western boundary of the Town is the Indian River Lagoon and Intracoastal Waterway. (There is no federal agency "Public Comment period" pending or expected on this Petition.)

EPA's Ban on TCE and PERC: A Historic Regulatory Milestone

By Michael Blumenthal, McGlinchey Stafford

On December 9, 2024, the U.S. Environmental Protection Agency (EPA) issued a landmark rule banning trichloroethylene (TCE) and perchloroethylene (PERC), two widely used industrial solvents associated with significant health risks, including cancer and neurological damage. The ruling, finalized under the Toxic Substances Control Act (TSCA), marks a pivotal step in public health protection, impacting industries such as dry cleaning, automotive, and manufacturing. The background, implications, and reactions surrounding the ban are sure to have far-reaching and lasting implications.

Introduction

TCE and PERC have long been integral to industrial and commercial applications, particularly as solvents in dry cleaning, metal degreasing, and chemical production. Despite their utility, mounting evidence of their adverse health effects—including carcinogenicity, liver and kidney damage, and neurotoxicity—prompted stringent regulations. The EPA's December 9, 2024, decision represents a culmination of years of research, advocacy, and regulatory efforts to mitigate the human and environmental risks posed by these chemicals.

Regulatory Background

The ruling follows the EPA's 2020 and 2022 risk evaluations, which identified TCE and PERC as chemicals posing "unreasonable risks" under the conditions of their use. These findings were supported by independent studies linking exposure to increased rates of liver, lung, and esophageal cancers, as well as groundwater contamination. The rule is part of a broader Biden-Harris Administration initiative to strengthen chemical safety laws and ensure environmental justice for vulnerable communities disproportionately affected by toxic chemical exposure.

The rule, however, will allow the chemical to be used in certain settings that the EPA has said may be critical for aviation, infrastructure, and national security. This includes petrochemical manufacturing, chemical milling, energized electrical cleaning, agricultural chemical manufacturing, and more. The finalized rule comes as the incoming Trump administration is expected to overhaul a number of previously approved EPA rules and regulations, as many Republicans have accused the agency of overreach.

Key Provisions of the Rule

The rule includes:

- 1. Comprehensive Ban:** Prohibiting the manufacture, import, processing, and distribution of TCE and PERC across all industries.
- 2. Worker Protection Measures:** Allowing extended compliance deadlines for specific industrial uses under strict workplace controls.
- 3. Dry Cleaning Phase-Out:** Mandating a complete cessation of PERC use in dry cleaning within two years, encouraging the adoption of safer alternatives.

4. Public Awareness Campaigns: Informing affected businesses and communities about safer substitutes and compliance strategies.

Health and Environmental Impacts

Human Health: Both TCE and PERC have been classified as carcinogens by the International Agency for Research on Cancer (IARC). Chronic exposure is linked to neurological disorders, developmental toxicity, and immune system impairments. Populations living near industrial facilities using these chemicals are at heightened risk due to air and water contamination.

Environmental Concerns: TCE and PERC are persistent in soil and water, contributing to long-term environmental degradation. Contaminated groundwater has necessitated costly remediation efforts, with significant implications for public water systems and ecosystems.

Industrial Implications: While the ban is celebrated as a victory for public health, it poses challenges for industries reliant on these solvents. The dry-cleaning sector, for instance, must transition to alternative technologies, such as liquid carbon dioxide and professional wet cleaning. Metalworking industries will also need to adopt safer degreasing agents.

The EPA has pledged to assist small businesses in navigating these transitions, including funding for research into greener alternatives and tax incentives for early compliance.

Public and Industry Reactions

Advocacy Groups: Environmental and public health organizations have hailed the decision as a historic win for communities exposed to chemical pollution. Groups like Earthjustice and Toxic-Free Future have highlighted the role of grassroots activism in securing the ban.

Industry Stakeholders: Industrial associations have expressed concerns over compliance costs and the feasibility of implementing alternatives within the mandated timelines. In comments submitted to the agency, the Dry Cleaning and Laundry Institute and the National Cleaners Association said that *“any future decision to reduce or phase out the use of PCE in dry-cleaning will put an oppressive burden on thousands of cleaners.”* However, some companies have welcomed the clarity provided by the regulation, which levels the playing field and accelerates innovation in safer chemical solutions.

The Takeaway

The EPA’s ban on TCE and PERC underscores the agency’s commitment to prioritizing public health and environmental safety over industrial convenience. While challenges remain in achieving full compliance, the rule sets a precedent for the regulation of other hazardous chemicals. Continued collaboration between regulators, industries, and advocacy groups will be essential to ensure a seamless transition to safer practices and a healthier future.

References

1. U.S. EPA. (2024). Risk Management for Trichloroethylene (TCE). [EPA.gov](https://www.epa.gov/tce)
2. U.S. EPA. (2024). Biden-Harris Administration Announces Latest Actions Under TSCA. [EPA News](https://www.epa.gov/newsroom/biden-harris-administration-announces-latest-actions-under-tsc)
3. Toxic-Free Future. (2024). EPA Finalizes Rule to Ban TCE. [Toxic-Free Future](https://www.toxic-freefuture.org/newsroom/epa-finalizes-rule-to-ban-tce)
4. The New York Times. (2024). E.P.A. Bans Perc and T.C.E. [NYTimes](https://www.nytimes.com/2024/05/01/us/politics/epa-bans-perc-tce.html)

**BEFORE THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY**

Petition for Rulemaking)
Under the Clean Water Act)
)
Water Quality Criteria for Cyanotoxins)
in the State of Florida)

I. INTRODUCTION

The Center for Biological Diversity (“Center”), hereby petitions the U.S. Environmental Protection Agency (“EPA”) to promulgate federal regulations applicable to the State of Florida, setting forth new human health water quality criteria for cyanotoxins in the state’s Class I, II, and III surface waters. **Sanibel-Captiva Conservation Foundation (“SCCF”), Calusa Waterkeeper, Friends of the Everglades, Florida Wildlife Federation, and the City of Stuart, Florida**, join the Center in this petition.

We respectfully request that the Administrator invoke his authority under section 303(c)(4)(B) of the Clean Water Act (“CWA”) to make a determination that a new standard for cyanotoxins is necessary to meet the requirements of the Clean Water Act. Federal standards are necessary because existing state standards and protocols are inadequate to protect public health from these pollutants. EPA must move swiftly amid state inaction and public policy counsels in favor of EPA exercising its authority when the state does not uphold its end of the bargain under the Act’s framework of “cooperative federalism.”

If there was ever the time for the EPA to determine that a new water quality standard is necessary to protect human health from harmful cyanobacteria blooms, it is now. Over the past two decades, Florida has experienced a proliferation of harmful algal blooms (“HABs”) that, as recently as last summer, have been so massive that they can be observed from space.¹ These blooms have killed and injured wildlife, made people sick, and damaged local economies throughout the state. Domestic, industrial, and agricultural wastes, coupled with rising temperatures and changes in precipitation driven by climate change, are contributing to the increased frequency and magnitude of HABs and the production of cyanotoxins.² Water management decisions and operations further exacerbate HABs by interrupting natural flows and discharging algae-laden water into sensitive brackish estuaries and coastal marine waters. This is most evident in Lake Okeechobee, the “liquid heart” of America’s Everglades, where the U.S.

¹ NASA. Earth Observatory. Algal Bloom in Lake Okeechobee, at <https://earthobservatory.nasa.gov/images/151581/algae-bloom-in-lake-okeechobee>.

² Rastogi, R.P., D. Madamwar, and A. Incharoensakdi. 2015. Bloom dynamics of cyanobacteria and their toxins: environmental health impacts and mitigation strategies. *Front. Microbiol.* 17 <https://doi.org/10.3389/fmicb.2015.01254>

Army Corps of Engineers often discharges billions of gallons of nutrient- and algae-laden water to the Caloosahatchee and St. Lucie Estuaries. Yet, the Corps can only do so much as water quality is primarily the state's responsibility under the Clean Water Act, subject to EPA oversight.³ Unfortunately, as water quality continues to deteriorate and the climate becomes increasingly hotter, the damaging effects of these blooms to water quality, fisheries, recreation, economies, human health, and animals are only expected to increase.⁴

Concerned about the harm caused by cyanotoxins and no doubt keenly aware of the events unfolding in Florida over the past decade, the EPA released health advisory values for algal toxins in drinking water in 2015,⁵ issued draft recommended human health recreational ambient water quality guidelines for the cyanotoxins microcystin and cylindrospermopsin in 2016,⁶ and published final recommended values for these cyanotoxins in recreational waters in 2019.⁷ These values are intended to guide states in adopting their own water quality standards. **It is worth noting that EPA took these actions under two different administrations.**

Microcystins are the most common cyanotoxins found worldwide and have been reported in surface waters in most states.⁸ Environmental factors such as nutrient load, increased water temperature, salinity, pH, light intensity, and reduced mixing provide competitive advantages to *Microcystis* relative to other phytoplankton.⁹ This cyanotoxin thrives in warmer temperatures.¹⁰ Cylindrospermopsin can be produced by several cyanobacteria species and the highest concentrations tend to occur below the surface water.¹¹ Consequently, visible surface scums are not an accurate measure of their presence in the water column.¹²

³ See 33 U.S.C. § 1313.

⁴ Preece, E.P., F.J. Hardy, B.C. Moore, and M. Bryan. 2017. A Review of microcystin detections in estuarine and marine waters: environmental implications and human health risk, *Harmful Algae* 61: 31-45.

⁵ EPA, EPA Issues Health Advisories to Protect Americans from Algal Toxins in Drinking Water (May 6, 2015), at <https://archive.epa.gov/epa/newsreleases/epa-issues-health-advisories-protect-americans-algal-toxins-drinking-water.html>.

⁶ U.S. Environmental Protection Agency. 2016. Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin, Draft. (EPA 2016).

⁷ U.S. Environmental Protection Agency. 2019. Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin. (EPA 2019), at <https://www.epa.gov/sites/default/files/2019-05/documents/hh-rec-criteria-habs-document-2019.pdf>; EPA, Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin, Notice of Availability, 84 Fed. Reg. 26413-26414 (June 6, 2019).

⁸ EPA (2016) at 25.

⁹ *Id.* at 15.

¹⁰ *Id.*

¹¹ *Id.* at 1.

¹² *Id.* at 1, 5.

On May 23, 2019, Petitioners Center, SCCF, and Calusa Waterkeeper submitted a petition for rulemaking to the Florida Department of Environmental Protection (“FDEP”) requesting the state to promulgate recreational water quality criteria for the cyanotoxins microcystin and cylindrospermopsin (Exhibit 1). On June 24, 2019, FDEP issued an order granting the petition to initiate rulemaking “to the extent that it seeks the initiation of triennial review rule development process, which the Department has already commenced, and consideration during this process of adopting criteria for microcystins and cylindrospermopsin.” (Exhibit 2). The Center, SCCF, and Calusa Waterkeeper submitted detailed comments to FDEP regarding their triennial review during the public comment period. (Exhibit 3).

Five years later, FDEP has still not completed its review and submitted the results to EPA. (Exhibit 4; Fla. Admin. Register, Vol. 45, No. 62 (Mar. 29, 2019)).¹³ Further, Florida has no water quality criteria for cyanotoxins in surface waters, no drinking water standards for cyanotoxins, and no quantitative guidelines for cyanotoxins in waters used for recreation. In fact, the state does not intend to establish water quality criteria for these cyanotoxins (Exhibit 5), despite EPA’s issuance of Final Recommended Human Health Recreational Ambient Water Quality Criteria and the Florida Blue Green Algae Task Force’s recommendations to adopt such criteria. (Exhibit 6). Instead, it intends to rely on criteria for chlorophyll-a as a “proxy,” despite the numerous inadequacies associated with such an approach (as explained in more detail below).

While FDEP remains listless in its efforts to complete its triennial review—much less develop any water quality protections from cyanotoxins—Florida’s residents, visitors, aquatic ecosystems, and local economies are continually harmed by the toxic effects of widespread harmful algal blooms that have ravished the state due in large part to inadequately managed nonpoint source pollution and a warming climate.¹⁴

This petition is brought pursuant to the Administrative Procedure Act (“APA”), 5 U.S.C. § 553(e), to request EPA to take the following actions: (1) make a determination pursuant to the Clean Water Act, 33 U.S.C. § 1313(c)(4)(B), that new water quality criteria for cyanotoxins are necessary for Florida to protect designated uses; and (2) promulgate federal regulations applicable to Florida, pursuant to 33 U.S.C. § 1313(c)(4), setting forth new water quality criteria for microcystins and cylindrospermopsin, as necessary to meet the requirements of the Act.

II. PETITIONERS

Center for Biological Diversity is a nonprofit, public interest environmental organization dedicated to the protection of imperiled species and the habitat and climate they need to survive.

¹³ See also, FDEP Triennial Review of Water Quality Standards, at <https://floridadep.gov/dear/water-quality-standards/content/triennial-review-water-quality-standards>.

¹⁴ For an in-depth discussion of cyanotoxins, their impacts, and nutrient pollution, please see Petition for Rulemaking, From the Center for Biological Diversity, Sanibel-Captiva Conservation Foundation, and Calusa Waterkeeper to Florida Department of Environmental Protection and Environmental Regulation Commission to Establish Water Quality Standards for Cyanotoxins in Florida Surface Waters (May 23, 2019) (Exhibit 1).

The Center works to secure a future for all species, great or small, hovering on the brink of extinction. The Center also seeks to protect biodiversity and human health from toxic substances while promoting a deep understanding of the inextricable connection between the health of humans and all other species. The Center advances its mission through science, legal action, policy advocacy, creative media, and grassroots campaigning.

The Center has 4,116 members and 95,512 supporters in Florida, including hundreds of members who live in some of the most damaged areas of the state, including in Hendry, Lee, Martin, Okeechobee, Palm Beach, and St. Lucie counties. These areas have been directly impacted by the discharge of cyanobacterial blooms from Lake Okeechobee and the subject of emergency declarations resulting from harmful algae blooms.

Center members, supporters, and staff also engage in water based recreational activities such as fishing, kayaking, canoeing, bird watching, and nature observation on surface waters throughout the state, including Lake Okeechobee, the Caloosahatchee River and Estuary, the St. Lucie River and Estuary, and the Indian River lagoon.

Center members have been and continue to be impacted by harmful algal blooms throughout the state. The threat of exposure to cyanobacteria has prevented members and staff from recreating on or near affected waters. One member even developed respiratory issues from what was suspected as continued exposure to cyanobacteria while working on and near the Caloosahatchee River.

Founded in 1967, **Sanibel-Captiva Conservation Foundation (SCCF)** is a 501(c)(3) non-profit organization dedicated to the conservation of coastal habitats and aquatic resources on Sanibel and Captiva and in the surrounding watershed.

SCCF is the largest private landowner on Sanibel Island. The organization manages more than 1,200 acres on Sanibel and more than 600 acres on surrounding islands. SCCF has facilitated the acquisition and fundraising for an additional 470 acres currently managed by the State of Florida and the U.S. Fish and Wildlife Service. Some of SCCF's properties have public access hiking trails. SCCF also has a native landscapes and garden center.

For over fifty years, SCCF has maintained several program areas, including: wildlife and habitat management, sea turtle research and monitoring, environmental education, natural resource policy, and a marine research laboratory. SCCF members, staff, and board of directors also frequently boat, fish, kayak and engage in other recreational activities in and around Pine Island Sound and the Caloosahatchee River and Estuary.

SCCF members, staff, and volunteers have all been impacted by the algae blooms in the Caloosahatchee River and Estuary. During the algal blooms of 2018, members could not use these waters to recreate due to cyanotoxins being present and those members who live on or in close proximity to the Caloosahatchee River were also unable to recreate and enjoy their waterfront properties in fear of the health issues that accompany exposure to cyanotoxins.

Calusa Waterkeeper, Inc. is a Florida non-profit organization, with more than 300 members, dedicated to the protection of the Caloosahatchee River and Estuary from Lake Okeechobee to the

coastal waters.

Calusa Waterkeeper began in 1995 as Caloosahatchee River Citizens Association, Inc. Calusa Waterkeeper was admitted to the Waterkeeper Alliance in 2015 as an affiliate organization and in December 2016, became a full member in Waterkeeper Alliance,¹⁵ adopting the new name Calusa Waterkeeper, Inc.

Calusa Waterkeeper members advocate for the protection of the Caloosahatchee River as their recreational and business interests, as well as their quality of life, are directly affected by cyanobacteria blooms. Several members have experienced health effects from exposure to cyanotoxins and the threat of being exposed to cyanotoxins have prevented Calusa Waterkeeper members from participating in environmental programs within and along waters impacted by the cyanobacteria blooms.

Founded in 1969 by writer and advocate Marjory Stoneman Douglas, **Friends of the Everglades** ("Friends") is a 501(c)(3) non-profit dedicated to preserving, protecting, and restoring the only Everglades in the world. Friends has three strategic goals:

1. Compel government agencies to comply with existing environmental laws, and resist any efforts to weaken such laws.
2. Encourage politicians to recognize the long consequences of their actions.
3. Spread awareness of the importance of the Everglades to the South Florida ecosystem.

The organization advances its mission and goals through grassroots advocacy, scientific research, litigation, and public outreach and education. Over the years, Friends has waged successful Clean Water Act litigation to enforce pollution limits in the Everglades.

Friends of the Everglades has more than 29,000 supporters, many of whom reside near or recreate in waterways and wetlands of the Greater Everglades region. In 2019, Friends of the Everglades moved its headquarters from Miami to Stuart, Florida, a community on the front lines of recurring cyanobacteria blooms that are fueled by nutrient-laden discharges from Lake Okeechobee to the St. Lucie River and Indian River Lagoon. Friends is deeply engaged in advocacy to improve water management and water quality in order to safeguard public health and environmental resources across the Greater Everglades.

Founded in 1936, the **Florida Wildlife Federation, Inc.** (Federation) is a private, statewide, non-profit citizens' conservation education organization dedicated to protecting and conserving Florida's iconic species, wild places, and water resources.

¹⁵ Waterkeeper Alliance is a 501(c)(3) nonprofit organization dedicated to protecting and restoring the nation's waterways through enforcement, fieldwork, advocacy, and environmental education for the benefit of communities that rely on these precious inland and coastal resources. Waterkeeper Alliance unites more than 300 waterkeeper organizations and affiliates. These organizations and affiliates patrol and protect more than 2.5 million square miles of rivers, lakes, and coastal waterways on six continents. Waterkeeper Alliance has 13 membership organizations overseeing separate water basins throughout Florida.

The Federation's mission is to conserve Florida's wildlife, habitats, and natural resources through education, advocacy, and science-based stewardship. Statewide, over 35,000 members and supporters are active participants in protecting, restoring, and connecting our remaining wildlife habitats, safeguarding water quality and quantity, and addressing ongoing climate change.

For over eight decades, the Federation has been at the forefront of efforts to conserve and protect Florida's iconic species, wild places, and precious natural resources. With a diverse coalition of supporters, the Federation empowers Floridians to act on the most pressing issues facing the health and sustainability of our wildlife and habitats.

The Federation's members, supporters, and staff have been and continue to be impacted by harmful algal blooms throughout the state, specifically related to the waterbodies of the St. Lucie, St Johns, and Caloosahatchee Rivers and Lake Okeechobee. As a recreation and conservation-focused organization, the environmental and public health implications of harmful algal blooms jeopardize the ability of the Federation's members, supporters, and staff to participate in recreational activities that connect them with Florida's land, water, and fish and wildlife.

The regulation of cyanobacteria is crucial for **Stuart, Florida**, due to its profound impact on our community. Toxic algae blooms in the St. Lucie Estuary pose significant health risks to residents and wildlife. In the past, we have had fatalities among animals where our resident's dogs have died from the exposure to the rotting algae.

Because the St. Lucie River is used as a storm water discharge for Central Florida and Lake Okeechobee, Stuart is often forced to accept millions of gallons of polluted water which would not naturally occur or flow into the St. Lucie estuary. When this nutrient rich fresh water containing unimaginably high levels of Cyanobacteria is pumped into the tropical waters of the St. Lucie estuary it causes algae blooms that destroy the sea grass, the riverbed and virtually all wildlife in its path. Environmentally, these blooms lead to dead zones by depleting oxygen levels, resulting in fish kills and damaging the delicate ecosystem. Economically, the presence of harmful algae deters tourism and recreational activities, directly affecting local businesses and reducing property values. Sadly, the polluted water has left a stained waterway in its wake. To both the north and south of Stuart, the waters are azure blue with white sands and sea grass supporting extensive tropical ecosystems. In Stuart the water is a cloudy brown color that oozes out of the inlet and follows the tide along the beaches. The residents and tourists have become reluctant to get near it.

Implementing stringent regulations and proactive measures to control nutrient pollution and manage water quality is essential to safeguard Stuart's natural beauty, promote public health, and ensure the community's economic vitality.

Accordingly, Petitioners have a substantial interest¹⁶ in a rule establishing water quality standards for cyanotoxins, which would help protect people (including the Petitioners' members) from recreational exposure to these harmful constituents. By promulgating water quality criteria for cyanotoxins, the EPA would establish clear numeric baselines for Florida'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. These criteria would form the basis of water quality monitoring and help identify which waters are impaired by cyanotoxins. Routine monitoring (not dependent on the observation of a bloom) would also provide state environmental and health officials with critical information to notify the public of the health and safety risks of recreating in waters with high cyanotoxin levels.

By setting numeric limits, Florida will be able to identify waters impaired by cyanotoxins and develop better total maximum daily loads (TMDLs), basin management action plans (BMAPs), best management practices (BMPs), and other nonpoint source controls to specifically prevent HAB outbreaks. Establishing these water quality criteria would further help optimize watershed planning, protection, and restoration in watersheds like Lake Okeechobee, the St. Lucie River and Estuary, Caloosahatchee River and Estuary, St. Johns River, and Lake Worth Lagoon by establishing a specific performance measure that is tied to protecting human health through primary contact recreational exposure, as well as fish and wildlife and the aquatic environment. These protections would in turn help protect and restore the waters the Petitioners and their members advocate for, use, and enjoy.

III. LEGAL FRAMEWORK

A. Clean Water Act

Congress passed the Clean Water Act "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."¹⁷ The Clean Water Act provides a comprehensive framework for protecting our nation's water quality from both point source¹⁸ and nonpoint source pollution.¹⁹

This framework turns in large part on the implementation of water quality standards. To that end, Section 303 of the Act directs states, subject to EPA approval, to develop and enforce comprehensive water quality standards establishing water quality goals for all intrastate waters.²⁰

¹⁶ See 5 U.S.C. § 553(e) (providing an "interested person" the right to petition for the issuance, amendment, or repeal of a rule"). The term "person" includes "an individual, partnership, corporation, association, or public or private organization other than an agency." *Id.* § 551(2).

¹⁷ 33 U.S.C. § 1251(a).

¹⁸ A "point source" is "any discernable, confined and discrete conveyance... from which pollutants are or may be discharged. 33 U.S.C. § 1362(14).

¹⁹ Non-point 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." *Nw. Env'tl. Def. Ctr. v. Brown*, 640 F.3d 1063, 1080 (9th Cir. 2011).

²⁰ 33 U.S.C. §§ 1311(b)(1)(C), 1313; *PUD No. 1 of Jefferson Cty v. Washington Dept. of Ecology*, 511 U.S. 700, 704 (1994).

These standards must “protect the public health or welfare, enhance the quality of water and serve the purposes of the [Clean Water Act].”²¹

Water quality standards are central to the design and plan of the Clean Water Act 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.”²² Uses are typically specified as part of a classification system, with the highest class consisting of potable water supplies.²³ The Clean Water Act 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.²⁴ Any existing use and water quality necessary to continue supporting that use must also be protected and maintained.²⁵ Criteria then build on these “uses,” fleshing out state water quality standards. These criteria may be expressed as numerical constituent concentrations, narrative statements, or both,²⁶ and represent a quality of water that supports a particular use.²⁷ States are encouraged to adopt numeric values based on EPA guidance²⁸ and water quality criteria must “accurately reflect[] the latest scientific knowledge.”²⁹ “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.”³⁰

In addition to identifying designated uses and establishing criteria to protect these designated uses, states must also develop and adopt a statewide anti-degradation policy and identify the methods for implementing such a policy as part of their state water quality standards.³¹ 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.”³²

²¹ 40 C.F.R. § 131.2. *See also* 33 U.S.C. § 1313(c)(2)(A).

²² 40 C.F.R. § 131.2 (emphasis added).

²³ *See* Fla. Admin. Code. R. 62-302.400 (listing seven classes of water in Florida with associated designated uses).

²⁴ 40 C.F.R. § 130.3.

²⁵ *See id.* § 131.10(h)(1) (stating that a state may not remove an existing use unless it replaces it with more stringent criteria).

²⁶ *Id.* § 131.11(b)

²⁷ *Id.* § 131.11(a). Water quality criteria can include several types of parameters to support both a designated and existing use, including for example, minimum water flows. *See PUD No. 1 of Jefferson Cty*, 511 U.S. 700.

²⁸ *See id.* § 131.6.

²⁹ 33 U.S.C. § 1314(a)(1).

³⁰ *Fla. Pub. Interest Research Group Citizen Lobby, Inc. v. EPA*, 386 F.3d 1070, 1074 (11th Cir. 2004).

³¹ *See* 40 C.F.R. § 131.12(a).

³² *Id.* § 131.2(a)(2) (emphasis added).

When criteria are met, water quality will generally protect the designated use.³³ 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.”³⁴ “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 ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters.”³⁵

States are required to review their water quality standards at least once every three years and if appropriate, revise or adopt new standards.³⁶ This is known as the “triennial review” process. The process requires public participation, and the state must submit the results of the review, any supporting analysis for the use-attainability analysis, the methodologies used for site-specific criteria development, any general policies applicable to water quality standards, and any revisions of the standards to the Regional Administrator for review and approval, within 30 days of the final state action to adopt and certify the revised standard. If no revisions are made as a result of the review, the state must submit its results within 30 days of the completion of the Review.³⁷ “In addition, if a State does not adopt new or revised criteria for parameters for which EPA has published new or updated CWA section 304(a) criteria recommendations, then the State shall provide an explanation when it submits the results of its triennial review to the Regional Administrator...”³⁸

Any new or revised water quality standards must be submitted to EPA for review and approval or disapproval.³⁹ After the state submits its officially adopted revisions, the Regional Administrator shall either: 1) notify the State within 60 days that the revisions are approved, or (2) notify the State within 90 days that the revisions are disapproved.⁴⁰ If the EPA disapproves of a state’s revisions, the notification must specify the changes needed to ensure compliance with the requirements of the Act and the implementing regulations, and explain why the State standard is not in compliance with these requirements.⁴¹ Any new or revised State standard must be accompanied by supporting analysis.⁴² If the State does not adopt the changes specified by the

³³ *Id.* § 131.3(b).

³⁴ *Id.* § 131.11(a)(1).

³⁵ *Id.* § 130.10(b). States must develop and adopt a statewide anti-degradation policy and identify the methods for implementing such a policy as part of their state water quality standards. *See* 40 C.F.R. § 131.12(a).

³⁶ 33 U.S.C. § 1313(c)(1).

³⁷ 40 C.F.R. § 131.20 (b) and (c).

³⁸ 40 C.F.R. § 131.20(a).

³⁹ 33 U.S.C. § 1313(c)(2)(A).

⁴⁰ 40 C.F.R. § 131.21 (a)(1)-(2).

⁴¹ *Id.* § 131.21 (a)(2).

⁴² *Id.* The Regional Administrator’s approval or disapproval of a State water quality standard shall be based on the requirements of the Act as described in 40 C.F.R. §§ 131.5 and 131.6. 40 C.F.R. § 131.21(b).

Regional Administrator within 90 days after notification of disapproval, the Administrator must promptly propose and promulgate such standard.⁴³

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 Clean Water Act.⁴⁴

33 U.S.C. § 1313(C)(4) provides in full:

The Administrator shall promptly prepare and publish proposed regulations setting forth a revised or new water quality standard for the navigable waters involved-

(A) If a revised or new water quality standard submitted by such State under paragraph (3) of this subsection for such waters is determined by the Administrator not to be consistent with the applicable requirements of this chapter, or

(B) In any case where the Administrator determines that a revised or new standard is necessary to meet the requirements of this chapter.⁴⁵

Under the implementing regulations, this determination must be signed by the Administrator, or his or her duly authorized delegate, and contain a statement that the document constitutes an Administrator's determination under section 303(c)(4)(B) of the Act.⁴⁶ "In promulgating water quality standards, the Administrator is subject to the same policies, procedures, analyses, and public participation requirements established for States in these regulations."⁴⁷ The Administrator has exercised their discretion to issue section 303(c)(4)(B) necessity determinations on several occasions.⁴⁸

⁴³ 40 C.F.R. § 131.22(a).

⁴⁴ 33 U.S.C. § 1313(c)(4)(B); 40 C.F.R. 131.22(b).

⁴⁵ *Id.* (emphasis added).

⁴⁶ 40 C.F.R. § 131.22(b)(1)-(2).

⁴⁷ 40 C.F.R. § 131.22(c).

⁴⁸ See EPA, Proposed Rule, Water Quality Standards to Protect Aquatic Life in the Delaware River, 88 Fed. Reg. 88315, 88336 (Dec. 21, 2023); EPA, Final Rule, Water Quality Standards for the State of Florida's Lakes and Flowing Waters, 75 Fed. Reg. 75,762, 75,763, 75,711 (Dec. 6, 2010); EPA, Final Rule, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California, 65 Fed. Reg. 31,682, 31,687 (May 18, 2000); EPA Decision Letter on New Water Quality Standards for St. Louis Segment of the Mississippi River from Peter S. Silva, U.S. Env'tl. Prot. Agency, Assistant Adm'r for Water, to Mark N. Templeton, Dir. MO Dep't of Nat. Res. (Oct. 9, 2002); EPA, Final Rule, Water Quality Standards for the Colville Indian Reservation in the State of Washington, 54 Fed. Reg. 28,622, 28,624 (July 6, 1989); EPA, Final Rule, Water Quality Standards for the Surface Waters of the Commonwealth of Kentucky, 52 Fed. Reg. 9102, 9102-03 (Mar. 20, 1987).

Thus, while states play a lead role in establishing water quality standards, “EPA serves as a backstop.”⁴⁹ As the Court in explained in *Northwest Environmental Advocates v. U.S. Env’tl. Prot. Agency*:

Not only does EPA have to review state-adopted WQS, but it must also ‘promptly prepare and publish’ new WQS for a state ‘in any case where the Administrator determines that a revised or new standard is necessary to meet the requirements of this chapter.’ **While this ‘necessity determination’ is discretionary, it exists to ensure EPA has a mechanism to meet the CWA’s goals to protect and enhance water quality where a state fails to uphold its part of the bargain.**⁵⁰

B. APA

Under the Administrative Procedure Act (“APA”), interested persons have the right to petition for the “issuance, amendment, or repeal” of an agency rule.⁵¹ A “rule” is the “whole or part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy.”⁵²

After receiving a petition for rulemaking, the EPA must consider the petition “within a reasonable time,”⁵³ which courts have found is “typically counted in weeks or months, not years.”⁵⁴ In addition, “prompt notice shall be given of the denial in whole or in part of a written application, petition, or other request of an interested person made in connection with any agency proceeding.”⁵⁵

Petitioners can challenge an agency’s refusal to promulgate rules under Section 706(2)(A) of the APA.⁵⁶ This includes a decision by EPA to deny a petition for rulemaking under section 303(c)(4)(B) of the Clean Water Act.⁵⁷

IV. EPA’S RECOMMENDED CRITERIA FOR CYANOTOXINS

In consideration of the human health effects of cyanotoxins resulting from recreational exposure, EPA in 2016 published draft recommended values for microcystins and cylindrospermopsin under section 304(a) of the Clean Water Act for states to consider as the basis for swimming

⁴⁹ *Northwest Environmental Advocates v. U.S. Env’tl. Prot. Agency*, 577 F. Supp. 3d 1190, 1198 (W.D. Wash.), vacated in part by, *Northwest Env’t Advocates v. U.S. EPA*, 2022 U.S. Dist. LEXIS 160035, 2022 WL 3867419 (W.D. Wash. Aug. 30, 2022) (granting joint motion to amend and modifying the Court’s December 29, 2021 Order on Cross-Motions for Summary Judgment).

⁵⁰ *Id.* at 1198-99 (emphasis added).

⁵¹ 5 U.S.C. § 553(e).

⁵² *Id.* § 551(4).

⁵³ *Id.* § 555(b).

⁵⁴ *In re Am. Rivers & Idaho Rivers United*, 372 F.3d 413, 419 (D.C. Cir. 2004).

⁵⁵ 5 U.S.C. § 555(e).

⁵⁶ *See Massachusetts v. EPA*, 549 U.S. 497, 527, 127 S. Ct. 1438, 167 L. Ed. 2d 248 (2007).

⁵⁷ *See Gulf Restoration Network v. McCarthy*, 783 F.3d 227, 232-42 (5th Cir. 2015); *Nw. Env’tl. Advocates v. United States EPA*, 2021 U.S. Dist. LEXIS 102761 (W.D. Wash. June 1, 2021)

advisories for notification purposes in recreational waters to protect the public.⁵⁸ In developing these recommended values, EPA noted that states may also consider using these values when adopting new or reviewed water quality standards.⁵⁹ The EPA explained that if adopted as water quality standards and approved by the agency under section 303(c) of the Clean Water Act, these water quality standards could be used for all Clean Water Act purposes.⁶⁰ States could also use these values as both swimming advisory values and/or water quality standards.⁶¹ 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.⁶²

Based on available noncancer health effects information,⁶³ EPA recommended values protective of primary contact recreation for microcystins at 4 micrograms per liter and for cylindrospermopsin at 8 micrograms per liter.⁶⁴ The values are based on overall exposure to children at the 90th percentile.⁶⁵ If used as a swimming advisory to protect swimmers at a beach, the values are not to be exceeded on any single day.⁶⁶ If used as water quality criteria for assessment and listing purposes, EPA recommended that states consider the number of exceedances of no more than 10 percent of days per recreational season up to one year.⁶⁷

On May 22, 2019, EPA issued its final recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin.⁶⁸ EPA's final recommended values are 8 µg/L for microcystins and 15 µg/L for cylindrospermopsin.⁶⁹ EPA published these recommended values under Section 304(a) of the Clean Water Act for states to consider as the basis for swimming advisories for notification purposes in recreational waters to protect the public.⁷⁰ States may also consider using these values when adopting new or revised water quality standards.⁷¹

Although a state is not required to adopt new or revised criteria for parameters for which EPA has published new or updated CWA section 304(a) criteria recommendations, the state must provide an explanation for not adopting the criteria when it submits the results of its triennial review to the Regional Administrator of the EPA consistent with Section 303(c)(1) of the Clean Water Act and the requirements of 40 C.F.R. §131.20(c).⁷² As explained earlier, Florida has

⁵⁸ EPA (2016) at 1.

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² *Id.*

⁶³ EPA concluded that for microcystins and cylindrospermopsin that there was inadequate information at the time to assess carcinogenic potential of cyanotoxins. EPA may revise its recommendations if additional information becomes available. *Id.* at 2.

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ EPA (2019).

⁶⁹ *Id.* at 16-17.

⁷⁰ *Id.* at 4.

⁷¹ *Id.*

⁷² 40 C.F.R. § 131.20(a).

neither completed its triennial review, nor has it explained to EPA why it will not adopt criteria for cyanotoxins.

Despite inaction by the State of Florida, other states severely impacted by HABs are taking action to protect their residents and visitors from cyanotoxins. As of 2019, twenty-one states have implemented HAB response guidelines in the event of a significant bloom in recreational waterways. 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.⁷³ Since then, it appears more states have implemented HAB response guidelines, with twenty-six states using cyanotoxin guidance values for microcystins as a basis for issuing advisories according to a 2021 survey.⁷⁴ California, Illinois, Indiana, Iowa, Kansas, Massachusetts, Nebraska, Ohio, Oklahoma, Oregon, Rhode Island, Texas, Vermont, Virginia, and Washington, all have a numeric component of their recreational water guidelines that require their respective state environmental and public health agencies to issue alerts, advisories, and closures.⁷⁵ For example, in Virginia, the presence of a blue-green algal scum or mat on the water surface *or* the presence of microcystin levels above 6 ppb, triggers a series of actions including immediate public notification and weekly sampling.⁷⁶

In addition to these recommended recreational water quality criteria for cyanotoxins, in 2015, the EPA released health advisory values for algal toxins in drinking water.⁷⁷ 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 (e.g. ten-days).⁷⁸ They serve as information technical guidance for Federal, State, and local governments and water system managers in protecting public health when emergency spills or contamination events occur.⁷⁹ Health advisory values provide information on the environmental properties, health effects, analytical methodology, and treatment for removal of drinking water contaminants.⁸⁰ There are health advisory values for more than 200 contaminants.⁸¹

Citing gastroenteritis and liver and kidney damage as potential health effects from longer exposure to higher levels of algal toxins in drinking water, the EPA recommended 0.3 micrograms per liter for microcystin and 0.7 micrograms per liter for cylindrospermopsin as

⁷³ EPA, Guidelines and Recommendations, at https://19january2017snapshot.epa.gov/nutrient-policy-data/guidelines-and-recommendations_.html.

⁷⁴ Hardy, F. Joan, Preece, E. and Backer, L. 2021. Status of state cyanoHAB outreach and monitoring efforts, United States, Lake Reserv. Manag. 2021 Feb; 37(3): 246-260.

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ EPA, EPA Issues Health Advisories to Protect Americans from Algal Toxins in Drinking Water (May 6, 2015), at <https://archive.epa.gov/epa/newsreleases/epa-issues-health-advisories-protect-americans-algal-toxins-drinking-water.html>.

⁷⁸ EPA. 2015. Drinking Water Health Advisory for the Cyanobacterial Microcystin Toxins, EPA Doc. Number 820R15100, p. 3, June 15, 2015, at <https://www.epa.gov/sites/default/files/2017-06/documents/microcystins-report-2015.pdf>.

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ *Id.*

levels not to be exceeded in drinking water for children younger than school age.⁸² These health advisory values are based on exposure for ten days.⁸³

Florida similarly lacks any standards or guidelines for cyanotoxins in drinking water.⁸⁴ In contrast, as of 2019, several states have implemented guidance values including Minnesota, Ohio, Oregon, and Vermont. Ohio, which like Florida, experiences some of the most widespread and harmful blooms in the country, has explicit “do not drink” action levels for several cyanotoxins, including microcystin and cylindrospermopsin.⁸⁵ Oregon and Ohio have had health advisories for cyanotoxins in drinking water since 2011. Comparatively, Florida indicated in response to a 2021 survey that it does not have a state outreach program to address cyanotoxin exposure in drinking water.⁸⁶

V. CYANOBACTERIA BLOOMS HAVE CAUSED WIDESPREAD HARM THROUGHOUT THE STATE.

Harmful algae blooms have inflicted damage across Florida, from the St. Johns River to Florida Bay. In 2005, a *Microcystis* bloom in the Lower St. Johns River covered a 100-mile stretch from Jacksonville to Crescent City.⁸⁷ In 2009, a 14-mile long algal bloom, linked to surface water runoff of nutrients and pollutants, impacted Tampa Bay.⁸⁸ In 2010, algal blooms and fish kills once again hit the St. Johns River.⁸⁹ From 2005-2008 and again in 2013 and 2015, widespread HABs killed marine life throughout Florida Bay.⁹⁰

Some of the largest and most destructive HABs in Florida have occurred in Lake Okeechobee, where they have been documented since the early 1980s but have increased in their frequency,

⁸² EPA News Release, at <https://archive.epa.gov/epa/newsreleases/epa-issues-health-advisories-protect-americans-algal-toxins-drinking-water.html>.

⁸³ *Id.*

⁸⁴ It also appears that Florida does not enforce EPA health advisories for cyanotoxins in drinking water, leaving it up to the public utility to decide their own policy. *See* American Water Works Association, Cyanotoxins in US Drinking Water: Occurrence, Case Studies and State Approaches to Regulation (Sep. 2016).

⁸⁵ EPA, Guidelines and Recommendations, at https://19january2017snapshot.epa.gov/nutrient-policy-data/guidelines-and-recommendations_.html.

⁸⁶ Hardy, F. Joan, Preece, E. and Backer, L. 2021. Status of state cyanoHAB outreach and monitoring efforts, United States, Lake Reserv. Manag. 2021 Feb; 37(3): 246-260.

⁸⁷ *See* Environmental Protection Agency, Water Quality Standards for the State of Florida’s Estuaries, Coastal Waters, and South Florida Inland Flowing Waters, Proposed Rule, 77 Fed. Reg. 74924, 74935 (Dec. 18, 2012).

⁸⁸ *See id.*

⁸⁹ *See id.*

⁹⁰ *See* Hubbard, K. Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute. 2018. Harmful Algae Blooms and Implications for the Florida Keys, at <https://nmsfloridakeys.blob.core.windows.net/floridakeys-prod/media/docs/20181016-habupdate.pdf>.

intensity, and duration over the last decade.⁹¹ The lake's shallow depth, along with nutrient runoff and warm water temperatures provide ideal conditions for HABs.⁹² Much of this nutrient and algae-laden water is discharged into the St. Lucie and Caloosahatchee estuaries, resulting in widespread destruction in 2005, 2008, 2013, 2016 and 2018.

In 2005, following several strong tropical storms, toxic *Microcystis aeruginosa* blooms formed in Lake Okeechobee and were discharged downstream into the St. Lucie estuary.⁹³

In mid-June 2008, a toxic blue-green algae 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.⁹⁴

In 2013, after additional tropical storms, the Corps once again discharged *M. aeruginosa* blooms in Lake Okeechobee into the St. Lucie estuary.⁹⁵ More than 5,000 people attended a rally at Phipps Park and the St. Lucie Locks in Martin County in response.⁹⁶

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.⁹⁷ Beaches were closed and then Gov. (now Senator) Rick Scott declared a state of emergency in Martin, St. Lucie, Palm Beach, and Lee Counties.⁹⁸

In 2017, heavy rain from Hurricane Irma and above-average rainfall in May 2018 set the stage for possibly the largest ever summer algal bloom in Lake Okeechobee; the Corps discharged toxic algae filled water into the St. Lucie and Caloosahatchee estuaries.⁹⁹ Finding the “release of

⁹¹ Rosen, B. H., T.W. Davis, C.J. Gobler, B.J. Kramer, and K.A. Loftin. 2016. Cyanobacteria of the 2016 Lake Okeechobee and Okeechobee Waterway Harmful Algal Bloom.

⁹² Havens, K. 2013. Deep Problems in Shallow Lakes: Why Controlling Phosphorus Inputs May Not Restore Water Quality. IFAS Extension. University of Florida; Havens, K., et al. 2016. Natural Climate Variability Can Influence Cyanobacteria Blooms in Florida Lakes and Reservoirs. IFAS Extension. University of Florida.

⁹³ Preece, et al. (2017).

⁹⁴ Environmental Protection Agency, Water Quality Standards for the State of Florida's Lakes and Flowing Waters, Final Rule, 75 Federal Register 75762, 75769 (Dec. 6, 2010).

⁹⁵ Preece, et al. (2017).

⁹⁶ See Crystal Vander Weit and Eric Hasert, Photos: A look back at Lake O discharges and toxic algae blooms over the last 20 years, TC Palm, (April 4, 2024), at www.tcpalm.com/picture-gallery/news/2024/04/04/a-look-back-at-toxic-algae-blooms-from-lake-o-discharges-since-2005/73197475007/.

⁹⁷ EPA (2016) at 20, 28.

⁹⁸ *Id.* at 29.

⁹⁹ Krinsky, L., Havens, K., and Philips, E. 2018. A response to frequently asked questions about the 2018 Lake Okeechobee, Caloosahatchee and St. Lucie rivers and estuaries algal blooms, University of Florida, IFAS, Blogs, at <http://blogs.ifas.ufl.edu/extension/2018/07/10/algal-blooms-faq/>.

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,” Governor Scott again issued a state of emergency, this time in Glades, Hendry, Lee, Martin, Okeechobee, Palm Beach, and St. Lucie Counties.¹⁰⁰

Following these discharges in 2018, researchers collected samples from the Caloosahatchee River at Fort Myers into Pine Island Sound and up to Boca Grande during an extended bloom of *Microcystis spp.* and a bloom of *Karenia brevis* in coastal waters of the Gulf of Mexico that coincided in the Fort Myers Area.¹⁰¹ High concentrations of microcystin-LR, the most toxic of microcystins that can cause liver damage, were detected in a cyanobacteria bloom along with neurotoxic brevetoxins from marine samples.¹⁰² High freshwater flows pushed the cyanobacterial bloom to barrier island beaches and microcystins could be detected in the marine environment at a salinity of 41 mS/cm.¹⁰³ The research suggested that under certain conditions such as high-water flows, cyanobacteria blooms may extend some distance into marine environments containing detectable cyanotoxins of known health concern.¹⁰⁴ This highlights the potential for multiple, potentially toxic blooms to co-exist in the marine environment.¹⁰⁵

The damaging discharges from Lake Okeechobee in 2005, 2008, 2013, 2016, and 2018 had a significant impact on the ecology of the northern estuaries and inflicted significant economic losses in commercial fishing, recreation tourism, and the real estate sectors.¹⁰⁶ These HABs also

¹⁰⁰ State of Florida, Office of the Governor, Executive Order Number 18-191 (Emergency Management-Lake Okeechobee Discharge/Algae Blooms), (July 9, 2018), available at <https://www.flgov.com/wp-content/uploads/2018/07/EO-18-191.pdf>.

¹⁰¹ Metcalf, J.S., Banack, S.A., Wessel, R.A., Lester, M., Pim, J.G., Cassani, J.R., Cox, P.A. 2020. Toxin Analysis of Freshwater Cyanobacterial and Marine Harmful Algal Blooms on the West Coast of Florida and Implications for Estuarine Environments. Neurotoxicity Research, <https://doi.org/10.1007/s12640-020-00248-3>.

¹⁰² *Id.* See also, National Library of Medicine, PubChem, Microcystin-LR, at <https://pubchem.ncbi.nlm.nih.gov/compound/445434>; Centers for Disease Control and Prevention, Emergency Preparedness and Response, Case Definition: Brevetoxin, at <https://emergency.cdc.gov/agent/brevetoxin/casedef.asp#:~:text=Brevetoxins%20are%20group%20of,oral%20ingestion%20of%20contaminated%20shellfish>.

¹⁰³ Metcalf et al. (2020).

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ South Florida Water Management District. 2018. Central Everglades Planning Project Post Authorization Change Report: Feasibility Study and Draft Environmental Impact Statement. (SFWMD 2018b).

sickened and killed family pets,¹⁰⁷ forced local businesses to close,¹⁰⁸ and diminished waterfront property values.¹⁰⁹

Since then, these blooms have only continued. FDEP reported that blooms covered approximately 45% of the Lake in 2022, which was comparable to levels in 2020 and 2021.¹¹⁰ In 2023, Lake Okeechobee experienced a cyanobacteria bloom that covered about 380 square miles (more half the area of the Lake).¹¹¹ The bloom threatened nearby towns¹¹² and the Department of Health issued public health warnings.¹¹³ TCPalm recently published a photo report chronicling the damaging effects of toxic algae blooms and the toll it has taken on local coastal communities over the past twenty years.¹¹⁴

Harmful algal blooms are beginning to occur this spring within Lake Okeechobee and the coastal estuaries. According to FDEP's March 22-28, 2024 monitoring report, microcystin levels above the EPA's recommended levels were reported at the St. Lucie Canal-96th Street Bridge (17 ppb) and St. Lucie River-Four Rivers (11 ppb).¹¹⁵ Local news sources are reporting on the situation.¹¹⁶ And like all of FDEP's monitoring reports (as discussed in greater detail below), absent a general

¹⁰⁷ Treadway, T. 2018. Toxic algae killed east coast dog after contact with St. Lucie River, owner says necropsy reveals, TC Palm (Sept. 17, 2018) at

<https://www.naplesnews.com/story/news/environment/2018/09/17/report-shows-dog-killed-toxic-blue-green-algae-st-lucie-river/1339559002/>.

¹⁰⁸ See Hagan, Alex. 2018. Stuart business owner: 'Algae killed us,' Jul. 3, 2018, WPTV, at <https://www.wptv.com/news/region-martin-county/stuart-business-owner-algae-killed-us->.

¹⁰⁹ See Ruane, Laura. 2018. Florida's algae crisis and lingering red tide hurt waterfront home sales, Jul. 13, 2018. Fort-Myers News Press, at <https://www.news-press.com/story/news/2018/07/13/floridas-algae-crisis-and-lingering-red-tide-hurt-home-sales/769673002/>.

¹¹⁰ NASA Earth Observatory, "Blooming Lake Okeechobee," at <https://earthobservatory.nasa.gov/images/150093/blooming-lake-okeechobee>.

¹¹¹ NASA. Earth Observatory. Algal Bloom in Lake Okeechobee, at <https://earthobservatory.nasa.gov/images/151581/algae-bloom-in-lake-okeechobee>.

¹¹² Dan Egan, "It's Toxic Slime Time on Florida's Lake Okeechobee," New York Times (Jul. 9, 2023).

¹¹³ Nathalie Vega, "Inundated with algae, Lake Okeechobee faced a slimy season," Sun-Sentinel (Oct. 9, 2023)

¹¹⁴ Crystal Vander Weit and Eric Hasert, Photos: A look back at Lake O discharges and toxic algae blooms over the last 20 years, TC Palm, (April 4, 2024), at www.tcpalm.com/picture-gallery/news/2024/04/04/a-look-back-at-toxic-algae-blooms-from-lake-o-discharges-since-2005/73197475007/.

¹¹⁵ FDEP, Blue-Green Algal Bloom Weekly Update, at https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloom_WE%20032824.pdf.

¹¹⁶ See Ed Killer, Toxic algae in St. Lucie river and canal are in dangerous concentrations, DEP confirms, TCPalm (March 29, 2024), at www.tcpalm.com/story/news/local/indian-river-lagoon/health/2024/03/29/lake-okeechobee-discharges-bring-toxic-algae-to-st-lucie-river-c-44-canal-dep-water-samples/73143698007/.

disclaimer, the latest reports fail to include any discussion about the human health impacts that might result from levels that exceed EPA's recommended levels of 8 ppb.

A. Recent Monitoring Reports Reflect Widespread Cyanobacteria Blooms Throughout the Year.

The last few years has seen a proliferation of cyanobacteria blooms across the state. Since May 2019, which coincides with the time EPA issued its final recommended criteria for cyanotoxins and Petitioners filed their petition for rulemaking with the State of Florida, DEP has posted weekly blue-green algae bloom updates on its website.¹¹⁷ More recently, these updates have included monitoring reports.¹¹⁸ On numerous occasions, the state reported widespread and sustained algal blooms and cyanotoxin levels that greatly exceeded the 8 micrograms per liter (µg/L) and 15 µg/L (or 8 ppb and 15 ppb)¹¹⁹ EPA recommended criteria for microcystins and cylindrospermopsin, respectively. Below are just some of the results across the state and throughout the seasons, over a nearly five-year period:

- 32.0 ppb (unnamed but presumably microcystins) at the S351 rim canal location on Lake Okeechobee (July 19-July 25, 2019 update)¹²⁰
- **192.9 ppb** total microcystins at Lake Okeechobee-SE, 71.75 ppb at Lake Okeechobee SW, 26.33 ppb at Lake Okeechobee South (August 23-29, 2019 update)¹²¹
- 34.75 ppb total microcystins at S5A in the C-51 Canal (September 6-September 12, 2019 update)¹²²
- 28.25 ppb total microcystins at Cypress Lake Boat Ramp at Northwest Shore (December 13-19, 2019 update)¹²³
- **560 ppb total microcystins** at Harbor Isle Lake, Southern Lobe, 150 ppb total microcystins at Lake Jenny Jewel and 34 ppb total microcystins at Lake Anderson (February 14-20, 2020 update)¹²⁴
- **120 ppb** total microcystins at C44, S153 (downstream) (April 17-April 23, 2020 update)¹²⁵

¹¹⁷ FDEP, Weekly Updates and Subscriptions, at <https://floridadep.gov/sec/sec/content/weekly-updates-and-subscription>.

¹¹⁸ Previously, on several occasions these updates did not include any information regarding toxin levels. *See, e.g.*, FDEP, Blue-Green Algal Bloom Weekly Update, Reporting May 17-May 23, 2019, at https://floridadep.gov/sites/default/files/AlgaeBloomWeekly052319_1.pdf (reporting that there were “22 site visits” where microcystin toxins were detected but providing no information about the where these samples were collected or the levels that were reported).

¹¹⁹ 1 microgram per liter (µg/L) is equal to 1 part per billion (1ppb).

¹²⁰ <https://floridadep.gov/sites/default/files/AlgaeBloomWeekly072519.pdf>

¹²¹ https://floridadep.gov/sites/default/files/AlgaeBloomWeekly082919_0.pdf

¹²² https://floridadep.gov/sites/default/files/AlgaeBloomWeekly091219_1.pdf

¹²³ <https://floridadep.gov/sites/default/files/AlgaeBloomWeekly121919.pdf>

¹²⁴ <https://floridadep.gov/sites/default/files/AlgaeBloomWeekly022020.pdf>

¹²⁵ <https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-042320.pdf>

- **800ppb total microcystins** at northern portion of Lake Okeechobee (L004) (June 19-25, 2020 update)¹²⁶
- 99.25 ppb total microcystins at Lake Okeechobee (LZ40 near surface sample) on June 30, 2020 and 290 ppb total microcystins at the same location on June 24, 2020 (June 26-July 1, 2020 update)¹²⁷
- 28 ppb total microcystins at Harbor Isles Lake Southern Lobe and 45 ppb total microcystins at Harbor Isles Lake NW Lobe (August 21-27, 2020 update)¹²⁸
- 62 ppb total microcystins at Lake Okeechobee (KBARSE station) (September 4-10, 2020 update)¹²⁹
- 46 ppb total microcystins at Lake Okeechobee (NCENTER station) (September 18-24, 2020 update)¹³⁰
- 57 ppb total microcystins at the Santa Rosa Sound-Laurel St. and Bay St. drainage; 52 ppb and 53 ppb microcystins at the POLE3S and PELBAY3 monitoring stations at Lake Okeechobee, respectively (September 25, October 1 2020) update¹³¹
- **610 ppb total microcystins** at Harbor Isle Lake-Southern Lobe (January 15-21, 2021 update)¹³²
- **860 ppb total microcystins** at Lake Okeechobee Pahokee Marina (April 23-29, 2021 update)¹³³
- **440 ppb total microcystins** at Lake Okeechobee (PALMOUT3 station) (April 30-May 6, 2021 update)¹³⁴
- 77 ppb total microcystins at Lake Okeechobee-S352 (Lakeside station) (May 7-13, 2021 update)¹³⁵
- 86ppb total microcystins at C51 Canal-S155A (upstream station) (May 14-20, 2021 update)¹³⁶
- 36 ppb total microcystins at Lake Okeechobee (L004 station) (September 3-9, 2021)¹³⁷
- 44ppb total microcystins at Lake Okeechobee (PALMOUT2 station) (October 1-7, 2021 update)¹³⁸

¹²⁶ <https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-062520.pdf>

¹²⁷ https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-070120_1.pdf

¹²⁸ <https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-082720.pdf>

¹²⁹ https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-091020_0.pdf

¹³⁰ https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloom_WE%20092420.pdf

¹³¹ https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloom_WE%20100120_0.pdf

¹³² <https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloom%20WE%20012121.pdf>

¹³³ <https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloom%20WE%20042921.pdf>

¹³⁴ https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-050621_1.pdf

¹³⁵ <https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-051321.pdf>

¹³⁶ <https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-052021.pdf>. See

also Scott Sutton and Matt Sczesny, Health alert sign posted at Lake Worth Beach park because of algae concerns, WPTV (May 14, 2021), at www.wptv.com/news/protecting-paradise/health-alert-sign-posted-at-lake-worth-beach-park-because-of-algae-concerns.

¹³⁷ <https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-090921.pdf>

¹³⁸ <https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-100721.pdf>

- **460 ppb of total microcystins** at Lake Okeechobee (Pahokee Marina) (November 26-December 2, 2021 update)¹³⁹
- 50 ppb of microcystins at Lake Sue (February 25-March 3, 2022 update)¹⁴⁰
- 20 ppb of microcystins at Lake Kinsale (with no algal sample collected) (July 29-August 4, 2022 update)¹⁴¹
- **950 ppb of microcystins** at Moody Lake (scum sample) (October 28-November 3, 2022 update)¹⁴²
- **100 ppb of microcystins** at Georges Lake-Boat Ramp Rd. and 49 ppb microcystins at Georges Lake-Center (February 10-16, 2023 update)¹⁴³
- **9000 ppb of microcystins** at Georges Lake-Boat Ramp Rd., (February 17-23, 2023 update)¹⁴⁴
- **150 ppb of microcystins** at Lake Okeechobee (S352 Lakeside) (April 28-May 4, 2023 update)¹⁴⁵
- 52 ppb of microcystins at Lake Okeechobee (S271 lakeside); 32 ppb and 27 ppb microcystins at Lake Okeechobee (S352 Lakeside) (June 9-15, 2023 update)¹⁴⁶
- **233 ppb microcystins** at Lake Okeechobee (S308C lakeside); 50 ppb at Lake Okeechobee (EASTSHORE); 28 ppb microcystins at Lake Okeechobee (POLESOUT3) (June 16-22 update), 2023¹⁴⁷
- **170 ppb microcystins** at Lake Okeechobee -S308C (lakeside) (July 7-13, 2023 update)¹⁴⁸
- 59 ppb microcystins at Lake Okeechobee-S308C Lakeside (July 14-20, 2023 update)¹⁴⁹
- **160 ppb microcystins** at Caloosahatchee-Jaycee Park; 57 ppb microcystins at C44 Canal-S308C (canal side); 48 ppb microcystins at Caloosahatchee River-Horton Park (July 21-27, 2023 update)¹⁵⁰
- 25 ppb microcystins at Lake Grenada-Boat Ramp (November 17-30, 2023 update)¹⁵¹

Although only a snapshot, these monitoring results illustrate harmful blue-green algae blooms are occurring throughout the year and across the state. Perhaps most concerning, these levels often greatly exceed EPA's recommended criteria (by a multitude of more than 10, 100, and even

¹³⁹ https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-120221_0.pdf

¹⁴⁰ <https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-030322.pdf>

¹⁴¹ <https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-080422.pdf>

¹⁴² <https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-110322.pdf>

¹⁴³ <https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-021623.pdf>

¹⁴⁴ <https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloomWeekly-022323.pdf>

¹⁴⁵ https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloom_WE%20050423.pdf

¹⁴⁶ https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloom_WE%20061523.pdf

¹⁴⁷ https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloom_WE%20062223.pdf

¹⁴⁸ https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloom_WE%20071323.pdf

¹⁴⁹ https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloom_WE%20072023.pdf

¹⁵⁰ https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloom_WE%20072723.pdf

¹⁵¹ https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloom_WE%20113023.pdf

1000) and there are no signs that there will be fewer occurrences any time soon. Health alerts are regularly being issued across the state.¹⁵²

B. Cyanotoxins Threaten Florida's Drinking Water Supplies.

Cyanotoxins 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 samples from its treatment plant showing cylindrospermopsin in the drinking water at levels above the 0.7 µg/L EPA health advisory.¹⁵³ 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.¹⁵⁴ Clear Lake receives its water in part from Lake Okeechobee.¹⁵⁵ Following the event, the City of West Palm Beach convened an expert panel that issued a report containing a series of recommended actions to reduce the risks to drinking water.¹⁵⁶

¹⁵² Cheryl Smith, Lake O discharges: DOH issues health alert for more toxic algae in St. Lucie River, C-44 (April 2, 2024), at www.tcpalm.com/story/news/local/indian-river-lagoon/2024/04/02/doh-health-alert-toxic-algae-st-lucie-river-c-44-canal-lake-okeechobee-discharges-lake-o-releases/73180732007/; Florida Department of Health, Palm Beach County, Health Officials Issue Blue-Green Algae Bloom Alert for Lake Okeechobee Pahokee Marina (April 12, 2024), at <https://palmbeach.floridahealth.gov/newsroom/2024/04/algae-okeechobee.html>; Florida Department of Health, Lake County, Health Officials Issue Blue-Green Algae Bloom Alert for Lake County Lake Yale-Center (LYC) (April 22, 2024), at <https://lake.floridahealth.gov/newsroom/2024/04/HEALTHOFFICIALSISSUEBLUE-GREENALGAEBLOOMALERTFORLAKECOUNTYLAKEYALE-CENTERLYC.html>; Florida Department of Health, Orange County, Health Officials Issue Blue-Green Algae Bloom Caution for Lake Arnold -N. Sore (April 19, 2024), at <https://orange.floridahealth.gov/newsroom/2024/04/blue-green-algae-lake-arnold.html>; Florida Department of Health, Seminole County, Health Official Issues Blue-Green Algae Bloom Alert for Seminole County-Lake Jesup (April 26, 2024), at <https://seminole.floridahealth.gov/newsroom/2024/04/algae-lake-jesup.html>; Florida Department of Health, Lee County, DOH-Lee-Officials-Issue-Blue-Green-Algae-Bloom-Alert-at-Caloosahatchee River (April 26, 2024), at <https://lee.floridahealth.gov/newsroom/2024/04/DOH-LEE-OFFICIALS-ISSUE-BLUE-GREEN-ALGAE-BLOOM-ALERT-AT-CALOOSAHATCHEE-RIVER.html>.

¹⁵³ City of West Palm Beach, *Drinking Water Advisory* (May 28, 2021), <https://www.wpb.org/Home/Components/News/News/1699/16>.

¹⁵⁴ *Id.*; City of West Palm Beach, *Update on Vulnerable Populations Water Advisory* (June 3, 2021), at <https://www.wpb.org/Home/Components/News/News/1722/16>.

¹⁵⁵ See Kimberly Miller, *Look at this lake: Is West Palm's drinking water supply in danger?*, PALM BEACH POST (Jul. 23, 2019), at <https://www.palmbeachpost.com/news/20190723/look-at-this-lake-is-west-palms-drinking-water-supply-in-danger>.

¹⁵⁶ City of West Palm Beach, *Cyanotoxin Expert Panel*, at <https://www.wpb.org/government/public-utilities/cyanotoxin-expert-panel>.

In June 2008, a toxic algae bloom occurred east of the Franklin Lock on the Caloosahatchee River and forced the temporary shutdown of the Olga Water Treatment Plant, which obtains its source water from the Caloosahatchee and provides drinking water to more than 30,000 people.¹⁵⁷ The water treatment plant was shut down again on May 5, 2011 because of algae and high salinities.¹⁵⁸ In 2012, a toxic blue-green algae bloom was identified from the City of LaBelle to the S-79 structure and later reappeared at the Olga Water Treatment Plant.¹⁵⁹ In May to June 2013, cyanobacteria blooms eventually led to the temporary closure of the plant.¹⁶⁰ In June 2015, a potentially toxic algal bloom at the Franklin Lock and Dam caused Lee County to shut down the plant and the Florida Department of Health issued a health notice to avoid contact with the Caloosahatchee River due to potentially toxic blooms.¹⁶¹ The plant then went offline on May 30, 2017 for about three weeks due to cyanobacteria concerns.¹⁶² On May 11, 2021 it was reported that algae at the plant was “thickening and stringy,”¹⁶³ that the algae at the plant was becoming more prevalent on May 18, 2021,¹⁶⁴ and “algae around the plant are in a thick layer along the banks.”¹⁶⁵ It was reported that the plant was offline during this time.¹⁶⁶

Concerns about the potential threat of cyanotoxins to drinking water supplies are not limited to areas impacted by discharges or that receive water from Lake Okeechobee.¹⁶⁷

¹⁵⁷ Environmental Protection Agency, Water Quality Standards for the State of Florida’s Lakes and Flowing Waters, Final Rule, 75 Federal Register 75762, 75769 (Dec. 6, 2010).

¹⁵⁸ See Crisis in the Caloosahatchee: Algal blooms in local waters, Sanibel Captiva Island Report, Islander, and Current (June 8, 2011), at <https://www.captivasanibel.com/2011/06/08/crisis-in-the-caloosahatchee-algal-blooms-in-local-waters/>

¹⁵⁹ South Florida Water Management District, C-43 West Basin Storage Reservoir, Water Quality Feasibility Study, Deliverable 2.2.: Final Information Collection Summary Report, 12 (April 3, 2020).

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

¹⁶² See https://news.caloosahatchee.org/docs/Cyanobacterial_170822.pdf

¹⁶³ Memorandum from Periodic Scientists Conference Call Participants, Caloosahatchee & Estuary Conditions Report (May 4-10, 2021).

¹⁶⁴ Memorandum from Periodic Scientists Conference Call Participants, Caloosahatchee & Estuary Conditions Report (May 11-17, 2021).

¹⁶⁵ Memorandum from Periodic Scientists Conference Call Participants, Caloosahatchee & Estuary Conditions Report (May 18-24, 2021).

¹⁶⁶ *See id.*

¹⁶⁷ See Ryan Ballogg, Is Manatee County tap water safe to drink with algae bloom? Environmental group concerned, Bradenton Herald (July 13, 2023), at www.bradenton.com/news/local/article277240498.html; Jim Waymer, Climate-fed algae puts Lake Washington, Florida drinking water at risk, Florida Today (April 27, 2023), at www.floridatoday.com/story/news/local/environment/2023/04/27/central-florida-lakes-rivers-face-more-algae-blooms-in-warming-world/70079378007/. See also Melaram R. and Lopez-Duenas, B. (2022) Detection and Occurrence of Microcystins and Nodularins in Lake Manatee and Lake Washington-Two Floridian Drinking Water Systems. *Front. Water* 4:899572. doi: 10.3389/frwa.2022.899572. The researchers performed a case study of two Florida lakes

Currently, there are no federal water quality numeric criteria or regulations for cyanobacteria or cyanobacterial toxins in drinking water under the Safe Drinking Water Act. In 2015, however, the EPA released health advisory values for algal toxins in drinking water.¹⁶⁸ Four states (Ohio, Oregon, Minnesota, and Vermont) have also published guidance values for microcystin concentrations in drinking water.¹⁶⁹ A 2000 survey conducted by Burns (2008), reported that microcystins were the most commonly found toxin in pre-and post-treated drinking water in Florida.¹⁷⁰ Finished water concentrations ranged from below detection levels to 12.5 µg/L.¹⁷¹

There is also 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.¹⁷² Following EPA's issuance of health advisories for algae toxins in drinking water, however, the agency published "Revisions to the Unregulated Contaminant Monitoring Rule" (UCMR 4) for public water systems (PWS) in 2016. Pursuant to the Safe Drinking Water Act (SDWA),¹⁷³ EPA is required once every five years, to issue a new list of no more than thirty (30) unregulated contaminants to be monitored by public water systems (PWSs).¹⁷⁴ UCMR 4 is intended to provide EPA and others with data on the occurrence and levels of contaminants in drinking water.¹⁷⁵ This national survey, which ran from 2018-2020, is one of the primary sources of information on occurrence and levels of exposure that the EPA uses to develop regulatory decisions for contaminants in the public drinking water supply.¹⁷⁶ EPA's Contaminant Candidate List (CCL), which includes anatoxin-a, cylindrospermopsin, and microcystin, was the primary source of priority contaminants considered for UCMR 4.¹⁷⁷ Of the 30 chemicals monitored under

supplying drinking water adjacent communities and reported that "although results indicate a low probable health risk from cyanotoxins, more research is needed to understand the intrinsic nature of MCs and NODs by examining their prevalence, distribution, and dynamics in surface drinking water supplies serving nearby communities."

¹⁶⁸ EPA, EPA Issues Health Advisories to Protect Americans from Algal Toxins in Drinking Water (May 6, 2015), at <https://archive.epa.gov/epa/newsreleases/epa-issues-health-advisories-protect-americans-algal-toxins-drinking-water.html>.

¹⁶⁹ EPA, Guidelines and Recommendations, at https://19january2017snapshot.epa.gov/nutrient-policy-data/guidelines-and-recommendations_.html.

¹⁷⁰ EPA (2015), at 13-14 (citing Burns, J., (2008). Toxic cyanobacteria in Florida waters. In: H.K. Hudnell, (Ed.), Proceedings of the Interagency, International Symposium on Cyanobacterial Harmful Algal Blooms (ISOC-HAB): State of the Science and Research Needs, Advances in Experimental Medicine and Biology. Chapter 5. Springer Press, New York, NY. Pp. 139-152).

¹⁷¹ *Id.* at 14.

¹⁷² *Id.* at 13.

¹⁷³ EPA, "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).

¹⁷⁴ EPA. 2016. The Fourth Unregulated Contaminant Monitoring Rule (UCMR 4), General Information, 1, at <https://www.epa.gov/sites/production/files/2017-03/documents/ucmr4-fact-sheet-general.pdf> ("EPA 2016b").

¹⁷⁵ *Id.*

¹⁷⁶ *Id.*

¹⁷⁷ *Id.* at 2. Under SDWA, EPA publishes a list of unregulated contaminants every five years that are not subject to any proposed or promulgated national primary drinking water regulations,

UCMR 4, 9 are cyanotoxins and 1 is a cyanotoxin group.¹⁷⁸ They include: microcystin-LR, microcystin-LA, microcystin-LY, microcystin-RR, nodularin, microcystin-LF, cylindrospermopsin, microcystin-YR, anatoxin-a, and total microcystins.¹⁷⁹

Under the SWDA, EPA is to consider the data from UCMR 4 and other sources, along with peer reviewed literature, to make a regulatory determination on whether to initiate the process to develop national primary drinking water regulations (NPDWR) for these contaminants.¹⁸⁰ The NPDWR are legally enforceable primary standards and treatment techniques that apply to public water systems and protect human health by limiting contaminant levels in drinking water.¹⁸¹ EPA has not developed NPDWR for cyanotoxins as of the date of this petition.

States can establish their own drinking water standards, however, even if they are not regulated under the NPDWR. Such was the case for several states that previously promulgated standards for per-and polyfluoroalkyl substances (PFAS) in the absence of national primary drinking water standards.¹⁸² Despite the repeated occurrence of wide-spread HABs, and concerning incidents like the ones previously discussed, the State of Florida has failed to issue any drinking water standards for cyanotoxins.

VI. CYANOBACTERIA BLOOMS HARM HUMAN HEALTH.

A. The Public is Exposed to Harmful Cyanotoxins While Recreating.

Scientists have expressed increasing concern about the long-term health effects of families being exposed to cyanotoxins in Florida's waters.¹⁸³ Cyanobacteria blooms can produce toxins

which are known or anticipated to occur in public water systems, and which may require regulation. The "Contaminant Candidate List" (CCL) contains cyanotoxins, including anatoxin-a, cylindrospermopsin, microcystins, and saxitoxin in the most recent, 2022 CCL 5. *See* EPA. Contaminant Candidate List (CCL) and Regulatory Determination. CCL 5 Chemical Contaminants, at <https://www.epa.gov/ccl/ccl-5-chemical-contaminants>.

¹⁷⁸ EPA (2016b) at 1.

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*

¹⁸¹ EPA, Ground Water and Drinking Water, National Primary Drinking Water Regulations, at <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations>.

¹⁸² *See, e.g., Contaminant Levels (MCLs)*, MICHIGAN PFAS ACTION RESPONSE TEAM, at https://www.michigan.gov/pfasresponse/0,9038,7-365-95571_99970---,00.html.

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.

¹⁸³ *See, e.g., Metcalf, J., S.A. Banack, J.T. Powell, F.J.M. Tymms, S.J. Murch, L.E. Brand, L.E., and P.A. Cox. 2018. Public health responses to toxic cyanobacterial blooms: perspectives from the 2016 Florida event, Water Policy 20 (5): 919-932.*

containing hepatotoxic, neurotoxic, and cytotoxic compounds.¹⁸⁴ Hepatotoxins include microcystins and cylindrospermopsin while neurotoxins include anatoxins and paralytic shellfish poisons.¹⁸⁵

Exposure from recreational water sources can occur through incidental ingestion while recreating, contact with the skin during activities like swimming, wading, and surfing, and inhalation as waterborne cyanotoxins are aerosolized.¹⁸⁶ Researchers at Florida Gulf Coast University found toxins can be inhaled and reach deep into the lungs¹⁸⁷ and documented airborne particles of cyanobacteria have been documented more than a mile inland from any retention ponds and three miles from the Caloosahatchee River.¹⁸⁸ Non-recreational exposure can occur through the consumption of cyanotoxin-contaminated drinking water and food (including fish) and during bathing or showering.¹⁸⁹ Studies have demonstrated bioaccumulation of cyanotoxins in mussels, crustaceans, corals, and fish.¹⁹⁰ Cyanotoxins may transfer through the food chain, and

¹⁸⁴ EPA (2016) at 15.

¹⁸⁵ *Id.* at 1; Williams, C.D., J. Burns, A. Chapman, M. Pawlowicz, and W. Carmichael. 2006. Assessment of Cyanotoxins in Florida's Surface Waters and Associated Drinking Water Resources, Final Report, 4, April 11, 2006.

¹⁸⁶ EPA (2016) at 29-30, 35.

¹⁸⁷ Williams, A.B. 2018. Algae toxins are airborne and can reach deep into human lungs, FGCU research shows, Fort Myers News Press, Nov. 29, 2018 at <https://www.news-press.com/story/tech/science/environment/2018/11/27/blue-green-algae-toxins-can-penetrate-lungs-fgcu-research-shows/2120238002/>.

¹⁸⁸ Williams, A.B. 2019. Algae crisis: Airborne particles of toxic cyanobacteria can travel more than a mile inland, new FGCU study shows, Fort Myers News Press, Mar. 15, 2019 at <https://www.news-press.com/story/tech/science/environment/2019/03/15/new-health-questions-raised-fgcu-research-toxic-algae-dust/3176195002/>.

¹⁸⁹ EPA (2016) at 1.

¹⁹⁰ See Miller, M.A., Kudela, R.M., Mekebri, A., Crane, D., Oates, S.C., Tinker, M., Staedler, M., Miller, W.A., Toy-Choutka, S.T., Dominik, C., Hardin, D., Langlois, G., Murray, M., Ward, K., Jessup, D.A. 2010. Evidence for a novel marine harmful algal bloom: cyanotoxin (microcystin) transfer from land to sea otters. PLoS ONE 5(9):e 12576. doi:10.1371/journal.pone.0012576 (citing Malbrouck, C., Kestemont, P. 2006. Effects of microcystins on fish. Environmental Toxicology and Chemistry 25: 72-85; Williams, D.E., Dawe, S.C., Kent, M.L., Andersen, R.J., Craig, M., et al. 1997. Bioaccumulation and clearance of microcystins from salt water mussels, *Mytilus edulis*, and in vivo evidence for covalently bound microcystins in mussel tissues. *Toxicon* 35: 1617-1625; Vasconcelos, V., Oliveira, S., Teles, F.O. 2001. Impact of a toxic and a non-toxic strain of *Microcystis aeruginosa* on the crayfish *Procambarus clarkii*. *Toxicon* 39: 1461-1470; Zimba, P.V., Camus, A., Allen EH, Burkholder, J.M. 2006. Co-occurrence of white shrimp, *Litopenaeus vannamei*, mortalities and microcystin toxin in a southeastern USA shrimp facility. *Aquaculture* 261: 1048-1055; Amorim, A, Vasconcelos, V. 1999. Dynamics of microcystins in the mussel *Mytilus galloprovincialis*. *Toxicon* 37: 1041-1052; Richardson LL, Sekar, R., Myers, J.L., Gantar M., Voss, J.D., et al. 2007. The presence of the cyanobacterial toxin microcystin in black band disease of corals. *FEMS Microbiology Letters* 272: 182-187).

there is a possibility that these toxins can reach humans through the consumption of fish.¹⁹¹ Microcystin accumulation may also possibly occur in humans.¹⁹²

Exposures can result in gastrointestinal, dermatologic, respiratory, neurologic, and other symptoms.¹⁹³ Some exposures have resulted in severe respiratory impairment (such as pneumonia and adult respiratory distress syndrome), as well as liver and kidney damage from ingesting contaminated drinking water.¹⁹⁴

Young children, pregnant women, nursing mothers, the elderly, and immunocompromised individuals may be more susceptible to the ill effects of cyanotoxins than the general population.¹⁹⁵ Accordingly, EPA has issued drinking water health advisories for microcystins and cylindrospermopsin that are at lower levels for bottle-fed infants and preschool-aged children than school-aged children and young adults.¹⁹⁶ The EPA also suggests that as a precautionary measure, other more vulnerable populations may want to consider following the recommendations for preschool age children and younger.¹⁹⁷

B. Several Studies Have Documented the Human Health Effects of Cyanobacteria Blooms.

The Centers for Disease Control and Prevention (CDC) investigated 11 waterborne disease outbreaks associated with HABs occurring in freshwater lakes across the United States between 2009 and 2010.¹⁹⁸ These HABs affected at least 61 individuals resulting in 2 hospitalizations.¹⁹⁹ Researchers concluded that the time to onset of effects might be rapid, that children might be at higher risk for illness, and that HAB-associated outbreaks occur during the warmer months.²⁰⁰

¹⁹¹ Zanchett, G. and E.C. Oliveira-Filho. 2013. Cyanobacteria and cyanotoxins: from impacts on aquatic ecosystems and human health to anticarcinogenic effects, *Toxins* 5(10): 1896-1917.

¹⁹² Miller et al. (2010).

¹⁹³ EPA (2016) at 4.

¹⁹⁴ Hilborn, E.D. and V.R. Beasley. 2015. One health and cyanobacteria in freshwater systems: animal illnesses and deaths are sentinel events for human health risks, *Toxins*, 1374-1395.

¹⁹⁵ EPA. 2015. Drinking Water Health Advisory for the Cyanobacterial Microcystin Toxins, EPA Doc. Number 820R15100, June 15, 2015.

¹⁹⁶ *Id.*

¹⁹⁷ *Id.*

¹⁹⁸ EPA (2016) at 4 (citing Hilborn, E.D., V.A. Roberts, L.C. Backer, E. DeConno, J.S. Egan, J.B. Hyde, D.C. Nichohlas, E.J. Weigert, L.M. Billing, M. DiOrion, M.C. Mohr, F.J. Hardy, T.J. Wade, J.S. Yoder, and M.C. Hlavsa. 2014. Algal bloom-associated disease outbreaks among users of freshwater lakes-United States, 2009-2010. *Morbidity and Mortality Weekly Report (MMWR)*, 63, 11-15).

¹⁹⁹ *Id.*

²⁰⁰ *Id.* In 2019, the CDC also announced that it will study Lake Okeechobee fishing guides to understand the long-term effects of exposure to cyanotoxins. See Williams, A.B. 2019. CDC to study how inhaled algae toxins affect Lake Okeechobee fishing guides, Fort Myers News-Press (May 20, 2019), at <https://www.floridatoday.com/story/news/2019/05/20/florida-toxic-algae-cdc-study-lake-o-fishing-guides-who-inhaled-toxic-algae/3742341002/>.

The New York State Department of Health surveyed 16 counties and determined that 32 people became ill in 2015 after recreating in lakes affected by HABs.²⁰¹

HAB-associated illness from recreational exposure may be underreported due to multiple possible exposure routes and the non-specific nature of potential health effects.²⁰²

According to the EPA, data indicates that the primary target organ for microcystins is the liver.²⁰³ Studies in laboratory animals document liver, kidney, and reproductive effects following short-term and sub-chronic oral exposures to microcystin-LR.²⁰⁴

Cyanotoxins have also been linked to poisoning, cancer, and disease. The International Agency for Research on Cancer classified microcystin-LR as possibly carcinogenic to humans.²⁰⁵ This was based on substantial evidence supporting a plausible tumor promoter mechanism for these liver toxins.²⁰⁶ According to one leading expert, “[c]yanotoxins are among the most potent toxins known, far more potent than industrial chemicals.”²⁰⁷

The harmful effects of cyanobacteria blooms may be having a significant and unique impact to Florida’s residents and visitors. In a 12-year study, researchers at Ohio State University identified significant clusters of deaths attributable to non-alcoholic liver disease in coastal areas impacted by cyanobacterial blooms.²⁰⁸ The cluster of deaths studied in Florida occurred in St. Lucie, Indian River, and Okeechobee counties, where based on data calculated by the CDC, there was a death rate from non-alcoholic liver disease that was nearly twice as high as the national rate.²⁰⁹ The study, however, did not find a causal relationship between cyanobacterial blooms and liver disease, and it did not include blooms that coincide with the discharges in 2013 and 2016.²¹⁰

²⁰¹ Mary Figgatt et al., Harmful Algal Bloom-Associated Illnesses in Humans and Dogs Identified Through a Pilot Surveillance System-New York, 2015. Centers for Disease Control and Prevention Morbidity and Mortality Weekly Report, Nov. 3, 2017.

²⁰² EPA (2016) at 4.

²⁰³ *Id.* at 35.

²⁰⁴ *Id.* at 45.

²⁰⁵ EPA Drinking Water Health Advisory for Cyanobacterial Microcystin Toxins, at 34.

²⁰⁶ *Id.*

²⁰⁷ Harmful Algae Blooms: The Challenges on the Nation’s Coastlines, Hearing Before the Subcommittee on Energy and Environment, Committee on Science and Technology House of Representatives, 103rd Cong. 110-113 (2008) (statement by Dr. Hilton Kenneth Hudnell, Vice President and Director of Science, SolarBee, Inc.).

²⁰⁸ Zhang, et al. (2015); Treadway, T. 2017. Ohio State University study links toxic algae blooms, fatal liver disease, Naples Daily News, May 22, 2017, at <https://www.naplesnews.com/story/news/local/indian-river-lagoon/health/2017/05/22/ohio-state-university-study-links-toxic-algae-blooms-fatal-liver-disease/100971180/>.

²⁰⁹ Treadway (2017).

²¹⁰ *Id.*

C. The Cyanobacteria-Derived toxin, BMAA, Has Been Linked to Neurodegenerative Disease.

The non-protein amino acid neurotoxin β -N-methylamino-L-alanine (BMAA) is a cyanobacteria-derived toxin that has been linked to neurodegenerative diseases like Lou Gehrig's disease (amyotrophic lateral sclerosis, or "ALS"), Alzheimer's disease, and Parkinsonism Dementia Complex (ALS/PDC).²¹¹ ALS is a debilitating and fatal neuromuscular disease affecting 2 of every 100,000 people worldwide.²¹² Approximately 30,000 and 500,000 people suffer from ALS and Parkinson's Disease in the United States, respectively.²¹³ Alzheimer's disease inflicts another 5.4 million Americans.²¹⁴ Cases of these neurodegenerative diseases are on the rise.²¹⁵ Increased longevity alone may not account for all of this increase, and heritability of these diseases is low (less than 10% of all cases).²¹⁶

BMAA has been documented in recreational waters throughout the world,²¹⁷ and is bioaccumulating in different organisms up the food chain, presenting an increased human health risk.²¹⁸ Brand et al. (2010) found BMAA bio-concentrated in crustaceans, mollusks, and some fish in South Florida.²¹⁹ High levels of BMAA have been found in fish in the Caloosahatchee River and Florida Bay.²²⁰ Cox et al. (2005) recommended that BMAA concentrations be monitored in invertebrates, fish, and grazing animals used for human consumption that directly consume cyanobacteria or forage on plants or prey that may have accumulated cyanobacteria-produced BMAA.²²¹ Subsequent published articles by other researchers, including in the *Journal of the American Medical Association*, further support these recommendations.²²²

²¹¹ Banack, S.A. et al. 2010. The Cyanobacteria Derived Toxin Beta-N-Methylamino-L-Alanine and Amyotrophic Lateral Sclerosis, *Toxins* 2010, 2, 2837-2850; Bienfang, P.K. et al. 2011. Prominent Human Health Impacts from Several Marine Microbes: History, Ecology, and Public Health Implications. *International Journal of Microbiology*. Vol. 2011. Article ID 152815.

²¹² *Id.*

²¹³ Holtcamp, W. 2012. The Emerging Science of BMAA. *Environmental Health Perspectives*. Vol. 120, No. 3.

²¹⁴ *Id.*

²¹⁵ Brand, L. et al. 2010. Cyanobacteria Blooms and the Occurrence of the neurotoxin beta-N-methylamino-L-alanine (BMAA) in South Florida Aquatic Food Webs. *Harmful Algae*. 2010 Sept. 1; 9(6): 620-635.

²¹⁶ *Id.*

²¹⁷ Banack, et al. (2010).

²¹⁸ Brand, L. 2009. Human exposure to cyanobacteria and BMAA. *Amyotrophic Lateral Sclerosis*, 2009, (Supplement 2): 85-95.

²¹⁹ Banack, et al. (2010); Brand (2009); Brand, et al. (2010).

²²⁰ Brand, et al. (2010).

²²¹ Bienfang, et al. (2011); Cox, P.A., S.A. Banack, S.J. Murch et al. 2005. Diverse taxa of cyanobacteria produce B-N-methylamino-L-alanine, a neurotoxic amino acid, *Proceedings of the National Academy of Sciences of the United States of America*, vol. 102, no. 14, pp. 5074-5078, 2005.

²²² Bienfang, et al. (2011) (citing Kuehn, B.M. 2005. Environmental neurotoxin may pose health threat, *Journal of the American Medical Association*, vol. 293, no. 20, pp. 2460-2462, 2005; Ince,

VII. EPA SHOULD EXERCISE ITS AUTHORITY TO PROMULGATE HUMAN HEALTH CRITERIA FOR CYANOTOXINS IN FLORIDA.

State water quality standards “shall consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses.”²²³ These water quality standards “shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter.”²²⁴ The Clean Water Act’s implementing regulations explain that to “serve the purposes of the Act,”

Water quality standards should, wherever attainable, provide water quality for the protection and propagation of fish, shellfish and wildlife and for recreation in and on the water and take into consideration their use and value [for] public water supplies, propagation of fish, shellfish, and wildlife, recreation in and on the water, and agricultural, industrial, and other purposes including navigation.”²²⁵

Pursuant to Section 303(c)(4)(B) of the Act, in any case where the Administrator determines that a revised or new standard is necessary to meet the requirements of the Act, the Administrator shall promptly prepare and publish proposed regulations setting forth a revised or new water quality standard for the navigable waters involved.²²⁶

EPA should exercise its authority under Section 303(c)(4)(B) to promulgate water quality criteria for cyanotoxins in Florida because a federal standard is necessary to meet the requirements of the Act. Existing nutrient standards are not aimed at protecting human health and recreation; the State’s sampling, testing, and monitoring requirements are inadequate; the proposed use of chlorophyll-a as a proxy is not based on sound scientific rationale; and the State has failed to submit the results of its triennial review to the EPA as required under the Clean Water Act.

Promulgating such standards is good public policy, as Florida’s residents and visitors desire such protections and EPA must provide a backstop when the state fails to uphold its end of the bargain under the principles of “cooperative federalism” that underpin the Clean Water Act. EPA should act swiftly amidst state inaction and promulgate cyanotoxin standards for all of Florida’s Class I, II, and III waters.

A. A Federal Standard is Necessary to Meet the Requirements of the CWA.

P.G. and G.A. Codd. 2005. Return of the cycad hypothesis-does the amyotrophic lateral sclerosis/parkinsonism dementia complex (ALS/PDC) of Guam have new implications for global health? *Neuropathology and Applied Neurobiology*, vol. 31, no. 4, pp. 345-353, 2005; Esterhuizen, M. and T.G. Downing. 2008. B-N-methylamino-l-alanine (BMAA) in novel South African cyanobacterial isolates, *Ecotoxicology and Environmental Safety*, vol. 71, no. 2, pp. 309-313, 2008).

²²³ 33 U.S.C. § 1313(c)(2)(A).

²²⁴ *Id.*

²²⁵ 40 C.F.R. § 131.2.

²²⁶ 33 U.S.C. § 1313(c)(4)(B).

1. Florida's Numeric Nutrient Criteria Are Not Intended to Protect Human Health.

The state's position to forgo adopting cyanotoxin standards because, among other reasons, it has "already adopted numeric nutrient criteria designed to be protective of aquatic life use support, which was determined to be the most sensitive use"²²⁷ is based on a misunderstanding of the different categories of water quality criteria and the unique roles they play under Clean Water Act.

There are two primary categories of water quality criteria: human health criteria (HHC) and aquatic life criteria.²²⁸ "Human health water quality criteria protect any designated uses related to ingestion of water, ingestion of aquatic organisms, or other waterborne exposure from surface waters."²²⁹ This *may* include, but is not limited to, consumption of fish or shellfish and the protection of sources of drinking water.²³⁰ The derivation of human health criteria requires information about the toxicological endpoints of concern for water pollutants and the pathways of human exposure to those pollutants.²³¹ The two primary pathways that the EPA considers when it establishes human health 304(a) criteria recommendations, including those for cyanotoxins, are direct and indirect ingestion of water and consumption of fish or shellfish obtained from the waterbody.²³² The 304(a) recommended criteria are designed to minimize the risk of adverse effects on human health from chronic or lifetime exposure to pollutants through these two primary pathways of exposure.²³³ EPA uses a number of different parameters in its human health criteria derivation equations including body weight, drinking water intake, fish consumption rate, bioaccumulation, and relative source contribution, and cancer risk levels.²³⁴ Human health criteria can also include a subset of recreational water quality criteria that are designed to protect primary contract recreational uses like "swimming, bathing, surfing, water skiing, tubing, water play by children, and similar water contact activities where a high degree of bodily contact with the water, immersion and ingestion are likely."²³⁵ This includes the recommended human health recreational ambient water quality criteria for microcystins and

²²⁷ DIV. OF ENV'T ASSESSMENT & RESTORATION, FLA. DEP'T OF ENV'T PROT., TRIENNIAL

REVIEW OF FLORIDA'S WATER QUALITY STANDARDS 84 (2021), available at https://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

²²⁸ Environmental Protection Agency, Water Quality Standards to Protect Human Health in Florida, Proposed Rule, 88 Fed. Reg. 85530, 85531 (Dec. 8, 2023).

²²⁹ EPA, Water Quality Standards Handbook, Chapter 3: Water Quality Criteria, 9 (Dec. 2023).

²³⁰ *Id.* (emphasis added).

²³¹ *Id.*

²³² *Id.*

²³³ *Id.*

²³⁴ *Id.* at 11-16.

²³⁵ *Id.* at 17.

cylindrospermopsin that the EPA issued in 2019, which address recommended concentrations of cyanotoxins in recreational waters to protect primary contact recreational uses.²³⁶

In comparison, aquatic life water quality criteria protect designated uses such as survival, growth, and reproduction of fish, invertebrates, and other aquatic organisms.²³⁷ These criteria “are necessary to support any designated uses related to protection and propagation of fish, shellfish, and wildlife.”²³⁸ Aquatic life criteria are derived by assessing the highest concentration of a substance in water that will not present a significant risk to the aquatic organisms in the water.²³⁹ EPA has published aquatic life 304(a) criteria recommendations that represent specific levels of chemicals or conditions in a waterbody that are not expected to cause adverse effects to aquatic life.²⁴⁰ States may also adopt site-specific aquatic life criteria.²⁴¹

Florida’s numeric nutrient criteria are based on protecting aquatic life rather than human health.²⁴² Moreover, while nutrient pollution can adversely impact aquatic life, impair recreational designated uses, and threaten human health, by fueling algal blooms,²⁴³ these nutrient criteria are not primarily focused on protecting human health from cyanobacteria blooms but rather on reducing impacts to flora and fauna. Florida Department of Environmental Protection (FDEP) contends but provides no additional support for the notion that these numeric nutrient criteria “also protect human health.”²⁴⁴ For example, there is no indication that in adopting its numeric nutrient criteria, that the state ever used cyanotoxins as a risk metric with a human health assessment endpoint for recreational uses and drinking water sources.²⁴⁵ Even if the state did consider the risk to human health from cyanotoxins in its development of the numeric nutrient criteria, nutrient criteria should not be viewed as a substitute for but as complementary to cyanotoxin criteria.²⁴⁶ As such, the state’s reliance on numeric nutrient criteria

²³⁶ *Id.*

²³⁷ 88 Fed. Reg. 85530, 85531.

²³⁸ EPA, Water Quality Standards Handbook, Chapter 3: Water Quality Criteria, 19 (Dec. 2023).

²³⁹ *Id.*

²⁴⁰ *Id.*

²⁴¹ *Id.* 21-24.

²⁴² DIV. OF ENV’T ASSESSMENT & RESTORATION, FLA. DEP’T OF ENV’T PROT., TRIENNIAL REVIEW OF FLORIDA’S WATER QUALITY STANDARDS 81–94 (2021).

²⁴³ Water Quality Standards Handbook at 25.

²⁴⁴ DIV. OF ENV’T ASSESSMENT & RESTORATION, FLA. DEP’T OF ENV’T PROT., TRIENNIAL REVIEW OF FLORIDA’S WATER QUALITY STANDARDS 84 (2021).

²⁴⁵ See EPA, Ambient Water Quality Criteria to Address Nutrient Pollution in Lakes and Reservoirs (Aug. 2021) (using metrics based on EPA’s 2019 Final Recommendations for Human Health Recreational Water Quality Criteria and Swimming Advisories for Cyanotoxins).

²⁴⁶ See EPA, Frequently Asked Questions: Implementing the 2021 Recommended Clean Water Act Section 304(a) Ambient Water Quality Criteria to Address Nutrient Pollution in Lakes and Reservoirs, 23 (Oct. 2023), at [Final Frequently Asked Questions: Implementing the 2021 Recommended Clean Water Act Section 304\(a\) Ambient Water Quality Criteria to Address Nutrient Pollution in Lakes and Reservoirs \(epa.gov\)](https://www.epa.gov/frequently-asked-questions-implementing-the-2021-recommended-clean-water-act-section-304-a-ambient-water-quality-criteria-to-address-nutrient-pollution-in-lakes-and-reservoirs) (explaining the relationship between EPA’s

to justify its decision not to establish criteria for cyanotoxins does not include sufficient parameters and constituents to protect recreational waters and other designated uses from cyanotoxins.

A more comprehensive approach is necessary to combat harmful algal blooms. By establishing criteria for cyanotoxins and incorporating cyanotoxins as biological endpoints for setting nutrient discharge limits in TMDLs,²⁴⁷ the state would be able to fully address the primary contributors to harmful algal blooms, which in addition to nutrient pollution, include water management decisions (e.g. water flow and water levels), and the effects of climate change. Water quality criteria for cyanotoxins would necessitate greater regulatory focus, transparency, and accountability because these criteria would serve as a clearly defined level of human health and environmental protection that pollution control measures must meet. Further, by identifying cyanotoxins independently of nutrients, the Department would be able to better address the connection between nutrients and HABs and account for other contributors to HABs, including the timing, volume, and distribution of water flows and levels by water managers, and rising temperatures and changes in precipitation fueled by climate change. In sum, exacting water quality criteria specifically for cyanotoxins sets a clear path forward for monitoring, assessing, and reducing HABs.

2. The State's Cyanotoxin Monitoring and Recreational Advisory Protocols Do Not Fully Inform and Protect the Public.

A central requirement of the Clean Water Act is that water quality standards protect the public health or welfare. In addition to relying on numeric nutrient standards that are not intended to protect public health and recreation, the state's reliance on a flawed qualitative approach to monitor for and warn the public of recreating in waters with high cyanotoxin levels also fails to meet the requirements of the Clean Water Act.

The Florida Department of Health (FDOH) purports to have established a “collaborative protocol” with the FDEP and the Fish and Wildlife Conservation Commission (FWC) for the monitoring and public notification of algae blooms in state waters.²⁴⁸ FDOH has explained that FDEP conducts sampling and testing of freshwater for blue-green algae while FWC samples and

2021 recommended criteria for nutrients in lakes and reservoirs to its 2019 recommended human health recreational ambient water quality criteria for cyanotoxins).

²⁴⁷ See Williams, C.D., J. Burns, A. Chapman, M. Pawlowicz, and W. Carmichael. 2006. Assessment of Cyanotoxins in Florida's Surface Waters and Associated Drinking Water Resources, Final Report, 34, April 11, 2006 (recommending that “surface water management plans, Pollution Load Reduction Goals (PLRGs), and Total Maximum Load (TMDLs) goals for nutrient-impaired water incorporate cyanobacteria and specifically cyanotoxins as biological endpoints for setting nutrient discharge limits. This strategy would help protect aquatic ecosystems and water catchments that are used for drinking water supply.”).

²⁴⁸ FDOH, Our Program and Partners, Bloom Monitoring and Notification, at <https://www.floridahealth.gov/environmental-health/aquatic-toxins/program-and-partners/index.html>.

tests marine waters for red tide.²⁴⁹ FDOH then gathers that data to develop a two-tiered notification process consisting of health cautions and health alerts.²⁵⁰ Health Cautions are based on the presence of a bloom and Health Alerts are issued when a toxin is detected.²⁵¹ FDOH then distributes that information to affected county health departments.²⁵² From there, FDOH asserts the county health departments relay that information locally through certain “established notification channels.”²⁵³ FDOH explains that “with concurrence from DEP and input from Florida’s Blue Green Algae Task Force, these conservative thresholds were selected over numeric criteria because they offer the greatest protection as conditions change.”²⁵⁴ FDOH submits that basing these notifications on the presence of cyanobacteria or their toxins, gives the public information in case conditions worsen.²⁵⁵

The state’s approach misses the mark when it comes to providing full protections to its residents and visitors. Although at first blush, it may appear that the state is taking the most conservative approach because any detectable concentration of cyanotoxins triggers a health alert,²⁵⁶ such action depends entirely on agency monitoring for cyanotoxins *when a visible bloom is present* or when members of the public notify FDEP that they believe a bloom is present.

In its November 4-7, 2019 Public Workshop Presentation on the Triennial Review of Florida’s Water Quality Standards, FDEP explained, the visual presence of an algal bloom is “used as a trigger by the DEP to perform Algal Bloom Response Sampling (cyanotoxins, algal ID, Nutrients, and CHI a).”²⁵⁷ While FDEP contends that it “frequently monitors” Florida’s water quality with the state’s water management districts, it only “routinely” collects algae bloom samples “as soon as they are observed as part of this effort.”²⁵⁸ This approach is fundamentally flawed because it fails to provide for actual, routine monitoring and does not account for the presence of cyanotoxins when there is no visible bloom. As a result, there could be significant delays between the time cyanotoxins first occur at concentrations greater than EPA

²⁴⁹ *Id.*

²⁵⁰ *Id.*

²⁵¹ *Id.*

²⁵² *Id.*

²⁵³ *Id.*

²⁵⁴ *Id.*

²⁵⁵ *Id.*

²⁵⁶ FDEP, Progress to Date and Next Steps, Miami, Florida (Feb. 1, 2023), *available at* https://protectingfloridatogether.gov/sites/default/files/documents/Progress%20To%20Date%20And%20Next%20Steps_501.pdf.

²⁵⁷ FDEP, Triennial Review of Florida’s Water Quality Standards, Division of Environmental Assessment & Restoration, Nov. 4-7, 2019, p. 78, at https://publicfiles.dep.state.fl.us/DEAR/DEARweb/Standards/Triennial%20Review%202019-2021/November%202019%20Workshops%20Technical%20Documentation/NovPublicWorkshop10_29_19_Final%20Presentation.pdf.

²⁵⁸ FDEP, Algal Bloom Contacts, at <https://floridadep.gov/dear/algal-bloom/content/algal-bloom-contacts#Health>. FDEP adds that “staff can be deployed to take additional samples in response to reported blooms-whether from a citizen, or other response team agencies or other sources.”

recommended guidelines and the time these levels are reported to the public, given that some of the tests that are performed to measure the levels of toxicity may take days or even weeks to run.²⁵⁹ Indeed, several Florida Department of Health press releases are dated almost a week after samples were taken and/or a bloom was reported.²⁶⁰ Further, the FDEP's Weekly Blue Green Algae Report often has samples pending with no follow up as to whether they came back with cyanotoxins until the following week.²⁶¹

The potential human health effects of failing to routinely monitor for cyanotoxins when blooms are absent are far from inconsequential. As EPA explained in 2016 when it issued its draft recommended criteria for cyanotoxins, microcystins can persist even after a bloom is no longer visible and cyanotoxin concentrations can be higher after the initial bloom fades.²⁶² Zastepa (2014) found that dissolved microcystin-LA was present in waters at a concentration of 20 µg/L or more for 9 ½ weeks even though the bloom was not visible after 5 weeks.²⁶³ Further, cylindrospermopsin-producing cyanobacteria do not tend to form visible surface scums, and the highest concentrations occur below the water surface.²⁶⁴ Accordingly, there is little support for FDEP's position that there is a "very low incidence of toxins in waters without a visible bloom present."²⁶⁵

²⁵⁹ Blue-green algae blooms are also not selecting of cyanotoxins, making it difficult if not impossible to differentiate a toxic blooming algae from a benign bloom. See Wisconsin Department of Health Services, Blue-Green Algae: Health Concerns Related to Blue-Green Algae, Are all blue-green algae dangerous?, at <https://www.dhs.wisconsin.gov/algae/healthconcerns.htm#:~:text=Not%20all%20algal%20blooms%20produce,bloom%20is%20dangerous%20or%20not>. Therefore, quick testing is important even if a visible surface bloom has been observed and testing is initiated.

²⁶⁰ See, e.g., Florida Department of Health, Lake County, Health Officials Issue Blue-Green Algae Bloom Alert for Lake County Lake Yale-Center (LYC) (April 22, 2024), at <https://lake.floridahealth.gov/newsroom/2024/04/HEALTHOFFICIALSISSUEBLUE-GREENALGAEBLOOMALERTFORLAKECOUNTYLAKEYALE-CENTERLYC.html>.

²⁶¹ Cf. FDEP, Blue-Green Algal Bloom Weekly Update, Reporting June 23-June 29, 2023 (reporting Lake Okeechobee-S352 (lakeside): 33 ppb Microcystis aeruginosa), at https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloom_WE%20062923.pdf; FDEP, Blue-Green Algal Bloom Weekly Update, Reporting June 16-June 22, 2023 (reporting that results are pending for samples collected at Lake Okeechobee-S352 (lakeside), at https://floridadep.gov/sites/default/files/Blue-Green%20AlgalBloom_WE%20062223.pdf.

²⁶² EPA (2016) at 1, 5, 31.

²⁶³ Zastepa A. (2014). Fate and persistence of microcystin congeners in lakes and lake sediments. University of Ottawa, Ottawa, Canada.

²⁶⁴ EPA (2016) at 1, 5.

²⁶⁵ FDEP, Triennial Review of Florida's Water Quality Standards, Division of Environmental Assessment & Restoration, Nov. 4-7, 2019, p. 79, at https://publicfiles.dep.state.fl.us/DEAR/DEARweb/Standards/Triennial%20Review%202019-2021/November%202019%20Workshops%20Technical%20Documentation/NovPublicWorkshop10_29_19_Final%20Presentation.pdf.

Because FDEP does not sample for cylindrospermopsin unless the agency or concerned citizens observe an active bloom, the state's water quality monitoring program is likely underreporting the occurrences of cylindrospermopsin levels in state waters exceeding EPA's recommended criteria. As a result of the state's reliance on qualitative criteria to sample and test for cyanotoxins, people could be exposed to harmful levels of cyanotoxins while recreating in waters that are not the subject of a health advisory. While FDEP contends that the visual presence of a bloom is used as a threshold because it "allows the public to make decisions about recreating in a water at the time of use,"²⁶⁶ the public cannot make fully informed decisions without being notified that high levels of cyanotoxins may still be present despite the absence of a visible surface bloom.

Moreover, even if cyanotoxins are detected following this qualitative "trigger," DOH merely "encourages local county health units to issue an alert advisory."²⁶⁷ The FDOH website does not explain what "established notification channels" county health departments utilize. There do not appear to be any written assurances, in state regulations or policies, that these advisories will be issued in every instance in a timely and consistent manner at the local level. It is our understanding that FDOH notifies the local county health department in the affected area and recommends options for the county health department to communicate to the local community that a Health Caution or Health Alert has been issued by FDOH. These options may include press release templates and signage. The county health department, however, appears to be under no obligation to communicate this information to the public, much less through any particular channel. Some counties may not even issue a press release for a Health Caution or a Health Alert. Indeed, it has been petitioners' collective experience, that often county health departments take no action at all.

It also appears that in addition to FDOH, the County Health Departments and FDEP, the United States Army Corps of Engineers and South Florida Water Management District have indicated that they also communicate health risk, monitoring, and reporting to the public through various different means and capacities.²⁶⁸ Yet, in the case of the Corps and Water Management District, their respective websites do not appear to provide the public with the opportunity to receive email notifications of these reports and the distribution list is largely by word of mouth. Moreover, there is no health risk information that accompanies these reports, only statements about blooms occurring at structures with a narrative index describing the size of visible blooms (ranging from a "car" to "larger than a football field" and the severity from "low" to "high").²⁶⁹ This is an inefficient and unnecessarily complicated process that could be simplified with easily identifiable numeric state water quality standards for cyanotoxins.

Since FDOH began posting press releases on its website regarding harmful algal blooms, it issued 73 blue-green algae alerts in 2022, 139 blue-green algae alerts in 2023, and more than 40

²⁶⁶ *Id.*

²⁶⁷ *Id.* at 78.

²⁶⁸ See <https://www.saj.usace.army.mil/Algae/>.

²⁶⁹ See USACE BGA Report (Sunday, April 7, 2024).

cautions and alerts already this year (2024).²⁷⁰ Unfortunately, such alerts lack full transparency, as the public is not notified in these press releases which cyanotoxins have been detected in these waters, much less the levels that are present. To find out what cyanotoxins were identified and at what levels, the public must visit FDEP's website or subscribe to email updates and comb through weekly monitoring reports to obtain that information, as Petitioners have done here.²⁷¹ FDOH's failure to widely disseminate this information contemporaneously with the issuance of a health alert, coupled with the lack of cyanotoxin standards for which these levels could be compared to, deprives the public of important information regarding the toxicity of these blooms.

This is a critical deficiency in the state's program that cannot be overlooked. As the monitoring reports discussed above reveal, in many instances cyanotoxin levels exceed the EPA's recommended criteria ten, fifty, hundred, or even **a thousand-fold**. Cyanotoxin levels this high pose not only a risk to those who may ingest water while recreating, but also to those who have contact with the water through their skin or breath in the aerosolized toxins while visiting the affected area. **For example, some of the highest levels recorded were taken near a marina, a boat ramp, and a public park.**

Therefore, the assumption that by merely alerting the public to stay out of the water is adequate to protect public health, does not consider these other risks and pathways to exposure, much less give the public sufficient information to fully appreciate the severity of the problem and make fully informed decisions prior to recreating. Without this information, the public may also be unable to fully appreciate the severity of Florida's toxic algae crisis and communicate these concerns to state and local decisionmakers. There must be greater transparency and accountability and the public must be better informed as soon as cyanotoxins are detected in the state's waters.

Instead, the state should adopt quantitative standards, because they establish levels that can be routinely monitored for and serve as clear trigger points for public health officials to act, regardless of whether a bloom is present.²⁷² Further, from a public health research perspective, quantitative standards would also provide publicly available data for studies to draw more definitive conclusions due to routine monitoring.²⁷³ Contrary to FDEP's assertion that a

²⁷⁰ FDOH, *Where are HABs?*, at <https://www.floridahealth.gov/environmental-health/aquatic-toxins/where-are-habs.html>.

²⁷¹ See FDEP, *Weekly Updates and Subscriptions*, at <https://floridadep.gov/sec/sec/content/weekly-updates-and-subscription>.

²⁷² As previously discussed, such is the case in numerous states that have numeric values in their recreational water guidelines, which require their respective state environmental and public health agencies to engage in frequent monitoring and issue alerts, advisories, and closures when these levels are exceeded.

²⁷³ See Guzman, E.A., Peterson, T.A., Winder, P.L., Francis, K.T., McFarland, M., Roberts, J.C., Sandle, J. and Wright, A.E. An assessment of potential threats to human health from algae blooms in the Indian River Lagoon (USA) 2018-2021: unique patterns of cytotoxicity associated with toxins. *Toxins* 2023 15(11), 664; <https://doi.org/10.3390/toxins15110664>; Schaefer, A.M., Yrastorza, L., Stockley, N., Harvey, K., Harris, N., Grady, R., Sullivan, J., McFarland, Reif, J.S. Exposure to microcystin among coastal residents during a cyanobacteria bloom in Florida. 2020. *Harmful Algae* 92: 101769 <https://doi.org/10.1016/j.hal.2020.101769>; Florida Atlantic

qualitative trigger is adequate and consistent with the precautionary principle,²⁷⁴ an approach that is not dependent on the observation of a bloom before assessing the risk to human health is far more consistent with the precautionary principle, which counsels in favor of taking action even if some cause and effect relationships are not fully established scientifically.²⁷⁵ While FDEP may be concerned about the high spatial and temporal variability in algal cell and toxin concentrations in addition to the potential lag time between sample collection and the dissemination of results,²⁷⁶ quantitative standards do not prevent the state from promptly notifying the public of a bloom when it is first observed.

Quantitative standards also demand a greater level of accountability from state agencies who must routinely monitor and report baseline conditions and assess whether state waters meet their designated uses and develop pollution control measures. Thus, numeric water quality criteria for recreational waters are necessary not only to provide the most informed human health advisories, but also to maintain and restore the quality of the state's waters.

Accordingly, EPA should adopt cyanotoxin criteria for the state of Florida. If the state truly has concerns regarding EPA's derivation of cyanotoxin thresholds, there is nothing preventing the state from adopting the more protective draft standards that were issued in 2016 or working with EPA to develop criteria that are best suited for the state's waters based on site-specific conditions or other scientifically defensible methods.²⁷⁷

University, FAU Seeks Participants for Study on Effects of Harmful Algal Blooms, at www.fau.edu/newsdesk/articles/habs-cape-coral-study.php.

²⁷⁴ See FDEP, Triennial Review of Florida's Water Quality Standards, Division of Environmental Assessment & Restoration, Nov. 4-7, 2019, 79, at https://publicfiles.dep.state.fl.us/DEAR/DEARweb/Standards/Triennial%20Review%202019-2021/November%202019%20Workshops%20Technical%20Documentation/NovPublicWorkshop10_29_19_Final%20Presentation.pdf.

²⁷⁵ See Kriebel, D., Tickner, J., Epstein, P., Lemons, J., Levins, R., Loechler, E.L., Quinn, M., Rudel, R., Schettler, T., Stoto, M. 2001. The Precautionary Principle in Environmental Science, *Environmental Health Perspectives*, 109(9): 871-876. A 1998 consensus statement on the precautionary principle listed four central components of the principle: 1) taking preventative action in the face of uncertainty; 2) shifting the burden of proof to the proponents of an activity; 3) exploring a wide range of alternatives to possibly harmful actions; and 4) increasing public participation in decision-making. *Id.* (citing Raffensperger C, Tickner J, eds. *Protecting Public Health and the Environment: Implementing the Precautionary Principle*. Washington, DC: Island Press, 1999.).

²⁷⁶ See FDEP, Triennial Review of Florida's Water Quality Standards, Division of Environmental Assessment & Restoration, Nov. 4-7, 2019, 79, at https://publicfiles.dep.state.fl.us/DEAR/DEARweb/Standards/Triennial%20Review%202019-2021/November%202019%20Workshops%20Technical%20Documentation/NovPublicWorkshop10_29_19_Final%20Presentation.pdf; FDOH, Our Program and Partners, Bloom Monitoring and Notification, at <https://www.floridahealth.gov/environmental-health/aquatic-toxins/program-and-partners/index.html>.

²⁷⁷ See 40 C.F.R. § 131.11(b)(1).

3. The Proposed Use of Chlorophyll-a as a Proxy Does Not Meet the Requirements of the Act.

In failing to adopt water quality criteria for cyanotoxins, Florida's Department of Environmental Protection stated in 2021 during its triennial review that chlorophyll-a could be used as a proxy instead.²⁷⁸

Water quality standards must contain "[w]ater quality criteria sufficient to protect the designated uses."²⁷⁹ These criteria must "be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use. For waters with multiple use designations, the criteria shall support the most sensitive use."²⁸⁰

Chlorophyll is not an appropriate proxy for cyanotoxins or for characterizing impairment because the conditions that promote or suppress chlorophyll in water are different than the conditions that allow for cyanotoxins such as microcystin from cyanobacteria.

Studies have described the competitive advantage cyanobacteria have over phytoplankton under a variety of conditions, especially those being influenced by climate change and warming waters.²⁸¹ Cyanobacteria have adapted to maximize available light near the surface utilizing vacuoles for buoyancy whereas most phytoplankton contributing to chlorophyll concentration do not have this advantage.²⁸² Additionally, the presence of mat-forming cyanobacteria or very high cell densities in the water column would likely contribute to light limitation of co-occurring phytoplankton that may ultimately suppress sample chlorophyll concentrations.

High levels of tannins and other macrophyte-derived allelochemicals are found to inhibit phytoplankton that contribute to water column chlorophyll.²⁸³ Conversely, cyanobacteria proliferate in Florida waters such as the Caloosahatchee River and Lake Okeechobee with high

²⁷⁸ See DIV. OF ENV'T ASSESSMENT & RESTORATION, FLA. DEP'T OF ENV'T PROT., TRIENNIAL REVIEW OF FLORIDA'S WATER QUALITY STANDARDS 81–94 (2021), available at https://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.

²⁷⁹ 40 C.F.R. § 131.6(c).

²⁸⁰ *Id.* § 131.11(a)(1).

²⁸¹ Paerl, H.W., Fulton R.S. 2006. Ecology of Harmful Cyanobacteria. In: Graneli E., Turner J.T. (eds) Ecology of Harmful Algae. Ecological Studies (Analysis and Synthesis), vol 189. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-540-32210-8_8; Pearl, H.W. and J. Huisman. 2009. Climate change: a catalyst for global expansion of harmful cyanobacterial blooms. Environ Microbiol Rep. 2009 Feb; 1(1):27-37 <https://enviromicro-journals.onlinelibrary.wiley.com/doi/10.1111/j.1758-2229.2008.00004.x>; Zhang et al. 2020 Alteration of dominant cyanobacteria in different bloom periods caused by abiotic factors and species interactions, J. Environ. Sci (China). 2021 Jan:99:1-9.

²⁸² Paerl and Fulton (2006).

²⁸³ Mulderij, G. 2006. Chemical warfare in freshwater-allelopathic effects on macrophytes on phytoplankton. ISBN: 90-9019798-2.

tannins, allelochemicals, and other dissolved organic compounds (CDOM) derived from plant decomposition. Additionally, microcystin-producing *Microcystis* have been shown to have some resistance to macrophyte-derived allelochemicals that more negatively affect other phytoplankton species.²⁸⁴

Thus, *Microcystis* avoids light limitation by forming surface mats and appears to have some resistance to the same allelochemicals found in water bodies with relatively high tannins and dissolved organic plant derivatives that would more negatively impact groups of eukaryotic planktonic algae without similar adaptive strategies for dominance as cyanobacteria. In the example described, cyanobacteria would likely dominate the aquatic community and indirectly suppress or outcompete phytoplankton, indirectly reducing water-column chlorophyll. In such a scenario chlorophyll would under-represent the potential impairment of recreation as a designated use.

For these reasons, the state's reliance on chlorophyll-a as a proxy for cyanotoxin is not based on "sound scientific rationale," does not "contain sufficient parameters or constituents to protect the designated use," and does not "support the most sensitive designated use of the water body."²⁸⁵ The state's reliance on chlorophyll-a is therefore inconsistent with the requirements of the Act, and the EPA should make a determination that federal cyanotoxin standards are warranted.

4. The State Has Failed to Update Criteria as Required by Section 303(C)(2)(B) in its Triennial Review and Otherwise Explain Why Adoption of EPA Recommended Criteria is Not Warranted.

Section 303(C)(2)(B) of the Act requires all states to initiate and complete a triennial review of their water quality standards and submit their reviews to EPA. Five years after initiating its triennial review, the State of Florida has still not completed the process, much less explained to EPA why cyanotoxin standards should not be adopted. As the EPA points out in its Water Quality Handbook, it is important to explain the state's rationale to the public and to be transparent in its decision-making process.²⁸⁶

As the EPA explained in its 1992 decision to promulgate a final rule to establish water quality standards for priority toxic pollutants in 14 states," excessive delay subverts the entire concept of the triennial review cycle which is intended to combine current scientific information with the results of previous environmental control programs to direct continuing progress in enhancing water quality."²⁸⁷ Since at least the early 1990's, it has been EPA's position that Sections

²⁸⁴ Dziallas, C. and Grossart, H.P. 2011. Increasing oxygen radicals and water temperature select for toxic *Microcystis* sp PLoS One 2011 6 e25569; Zilleges, Y. et al. The cyanobacterial hepatotoxin microcystin binds to proteins and increases the fitness of *Microcystis* under oxidative stress conditions PLoS One 2011 6 e17615; Leunert, F. et al. 2014. Phytoplankton response to UV-generated hydrogen peroxide from natural organic matter. J Plankton Res. 2014 36 185 97.
²⁸⁵ 40 C.F.R. § 131.11(a)(1).

²⁸⁶ EPA, Water Quality Standards Handbook, Chapter 3: Water Quality Criteria, 3 (Dec. 2023).

²⁸⁷ U.S. Env'tl. Prot. Agency, Water Quality Standards; Establishment of Numeric Nutrient Criteria for Priority Toxic Pollutants; States' Compliance, 57 Fed. Reg. 60848 (Dec. 22, 1992).

303(c)(1)(“triennial reviews”) and 303(c)(4)(B)(“necessity” determinations) should be read and used in concert to eliminate state delays and compel action.²⁸⁸

Although Florida may believe that delay is excusable because EPA’s recommended criteria may not cause any additional waters in Florida to be listed as impaired in the short term,²⁸⁹ cyanotoxin standards are necessary not only to restore and protect these waters but to also ensure that the state’s remaining waters will not be impaired in the future. Given the crisis gripping the state, it is not an issue of “if” but “when” more waters will become impaired unless water quality standards are adopted. Thus, the adoption of cyanotoxin standards is necessary to meet the requirements and fulfill the purposes of the Act (i.e., to both restore those waters already impaired by cyanotoxins as well as *maintain* the chemical, physical, and biological integrity of those waters that are not currently impaired).²⁹⁰

B. Promulgating a Federal Standard is Good Public Policy.

1. Florida’s Residents and Visitors Must be Fully Protected from Cyanotoxins.

According to a 2021 Gallup poll, water pollution remains the top environmental concern in the United States and the majority of those polled express a “great deal” of worry about the pollution of both drinking water and rivers, lakes and reservoirs.²⁹¹

Human health-based water quality criteria serve as an informational resource for the public to better understand the types of pollution impacting our country’s waterways and the risks they pose to human health. These criteria represent a quality of water that supports a particular use, such as for human consumption or for recreation. When certain criteria are exceeded, such as when there are elevated levels of bacteria or toxic pollutants, these waters can pose a threat to human health. Multiple studies present evidence linking the presence of these harmful cyanobacterial blooms with numerous public health maladies, including gastrointestinal distress, liver diseases, and neurological disorders. Given the dangers posed by cyanotoxins, the lack of water quality criteria for cyanotoxins obscures the harm inflicted on people (including Petitioners’ members) using these waters to recreate. In consideration of these threats, conservation organizations, members of the

²⁸⁸ *Id.*

²⁸⁹ See FDEP, Triennial Review of Florida’s Water Quality Standards, Division of Environmental Assessment & Restoration, Nov. 4-7, 2019, 79, at https://publicfiles.dep.state.fl.us/DEAR/DEARweb/Standards/Triennial%20Review%202019-2021/November%202019%20Workshops%20Technical%20Documentation/NovPublicWorkshop10_29_19_Final%20Presentation.pdf.

²⁹⁰ See 33 U.S.C. § 1251(a).

²⁹¹ Megan Brennan, Water Pollution Remains Top Environmental Concern in U.S. (April 19, 2021), at <https://news.gallup.com/poll/347735/water-pollution-remains-top-environmental-concern.aspx>. A 2016 survey of Florida residents also reported that respondents found water quality to be an issue of high importance and believed water quality had not changed, with the quality of bays getting worse. See Leal, A., Rumble, J.N., Lamm, A.J. (2015). Setting the Agenda: Exploring Florida Residents’ Perceptions of Water Quality and Quantity Issues,” *Journal of Applied Communications*: Vol. 99; Iss. 3. <https://doi.org/10.4148/1051-0834.1058>.

public, local governments, a U.S. Congressman, and the state's very own Blue-Green Algae Task Force, have voiced their support of water quality criteria for cyanotoxins.²⁹²

For example, on May 30, 2019, Martin County wrote to the FDEP requesting that it include EPA's final recommended criteria for microcystins and cylindrospermopsin in its rulemaking during the triennial review process. The County explained:

As a local government with Class III and designated Outstanding Florida Waters (Jensen Beach to Jupiter Inlet and North Fork St. Lucie River Aquatic Preserves), the County needs to be able to communicate with the public about the quality of the water that is of vital importance to the health and wellbeing of its residents, visitors, and the sustainability of the overall economy. Our residents and visitors expect a high and consistent level of protection in our surface waters. Martin County believes that surface water quality standards help to achieve those protections. (Exhibit 8).

Given the inadequacies of the existing monitoring and public notification frameworks, water quality criteria would provide much needed transparency and accountability to the state's water quality program.

2. Improved Water Quality Will Result in Substantial Economic Benefits.

In addition to providing much stronger protections for human health, the promulgation of water quality criteria for cyanotoxins will lead to improved water quality, which carries with it significant recreational and economic benefits to the state. Outdoor recreation, including recreational fishing, hunting, and wildlife-viewing generate \$10.1 billion annually for Florida's

²⁹² See, e.g., Letter from Center for Biological Diversity, Sanibel-Captiva Conservation Foundation, Calusa Waterkeeper, Sierra Club, Natural Resources Defense Council, Surfrider Foundation, Friends of the Everglades, Waterkeeper Alliance, and Bullsugar (now VoteWater), to Kaitlyn Sutton, Florida Department of Environmental Protection (Nov. 18, 2019) (Exhibit 7); Letter from Don Donaldson, Deputy County Administrator, Martin County, Florida to Kaitlyn Sutton, Florida Department of Environmental Protection, (May 30, 2019) (Exhibit 8); Florida Blue Green Algae Task Force Consensus Document #1 (Exhibit 6). U.S. Representative Brian Mast has also referenced the 2019 Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin in his comments on the dangers posed by toxic algae blooms in Lake Okeechobee. See Amy Bennett Williams, How much algae toxin is too much? Environmental groups urge EPA to adopt stricter guidelines for recreational exposure, The News-Press (May 23, 2019), at <https://www.news-press.com/story/tech/science/environment/2019/05/23/how-much-blue-green-algae-toxin-too-much-epa-issues-guidelines-recreational-exposure-two-common-vari/1203815001/>. In a July 2020 Blue Green Algae Task Force meeting, Rep. Mast asked the Task Force to recommend that the State adopt EPA's Final Recommended Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins. See Department of Environmental Protection Blue-Green Algae Task Force Part 1 (July 29, 2020), at <https://thefloridachannel.org/videos/7-29-20-department-of-environmental-protection-blue-green-algae-task-force-part-1/>.

economy.²⁹³ 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.²⁹⁴

For example, harmful algal blooms may be responsible for a significant decline in the number of spotted sea trout caught by commercial fisherman and recreational anglers in Florida waters, particularly in areas most impacted by the discharges of algal laden water from Lake Okeechobee.²⁹⁵ According to statewide commercial landing data, the combined catch dropped from 79,274 pounds in 2012 to 21,926 pounds in 2017.²⁹⁶ The commercial value of trout plummeted from \$174,087 in 2012 to \$62,801.²⁹⁷ Far fewer fish are being caught per trip, with 49.5 pounds per trip in 2012 to 18.5 pounds per trip in 2017.²⁹⁸ The most alarming losses are along the East coast from Volusia to Martin Counties, which experienced an 82% catch decline from 2012 to 2017 and in Lee and Charlotte Counties, where the catch suffered a 96% loss from 2012 to 2018.²⁹⁹ The precipitous decline in the harvest of spotted sea trout, which reside year-round in Florida's coastal estuaries, prompted FWC staff to recommend a reduction in bag limits for recreational anglers.³⁰⁰

Harmful cyanobacteria blooms may also have a significant adverse impact on property values throughout the state. In 2015, a Florida Realtor's study found changes in the water quality of the St. Lucie Estuary, Loxahatchee Estuary, and a portion of the Indian River Lagoon north of the St. Lucie Inlet, as measured by changes to one-year average Secchi disk depth,³⁰¹ resulted in an estimated \$488 million reduction in Martin County's aggregate property value between May 1, 2013 and September 1, 2013.³⁰² The study further found that a one-foot loss of Secchi disk depth in Lee County would be associated with an estimated loss of \$541 million.³⁰³

A 2023 study found that if Charlotte, Lee, and Collier Counties experienced another harmful algal bloom similar to the HABs experienced in 2005 and 2018, the area would lose over \$460

²⁹³ Florida Fish and Wildlife Conservation Commission, Economic Impact of Outdoor Recreation, at <https://myfwc.com/conservation/value/outdoor-recreation/>.

²⁹⁴ Graham, et al. (2016); Dodds, W.K., W.W. Bouska, J.L. Eitzmann, T.J. Pilger, K.L. Pitts, A.J. Riley, J.T. Schloesser, and D.J. Thornbrugh. 2009. Eutrophication of U.S. Freshwaters: Analysis of Potential Economic Damages. *Environmental Science and Technology* 43(1):12-19.

²⁹⁵ Killer, E. 2019. Trout trouble? Statewide water issues likely to result in reduced bag limit for spotted seatrout. *TC Palm* (Apr. 26, 2019).

²⁹⁶ *Id.*

²⁹⁷ *Id.*

²⁹⁸ *Id.*

²⁹⁹ *Id.*

³⁰⁰ *Id.*

³⁰¹ A Secchi disk is an 8-inch disk that is slowly lowered into the water until it is no longer visible to the naked eye, at which point the depth of the disk is recorded. Florida Realtors. 2015. *The Impact of Water Quality on Florida's Home Values, Final Report*, v, March 2015, available at https://www.floridarealtors.org/sites/default/files/2018-11/FR_WaterQuality_Final_Mar2015_1.pdf.

³⁰² *Id.*

³⁰³ *Id.*

million in commercial and recreational fishing, over 43,000 jobs, \$5.2 billion in local economic output, \$17.8 billion in property values with an associated \$60 million in property tax revenue, and \$8.1 billion in the value of outdoor recreation.³⁰⁴

While EPA does not need to evaluate the economic impacts of promulgating water quality criteria for cyanotoxins in Florida before determining under section 303(c)(4)(B) of the Act that such standards are warranted, these and other studies demonstrate the quantifiable benefits of improving water quality for the state's wildlife, inland and coastal communities, and local economies.

3. EPA Must Provide a Backstop When the State Fails to Uphold its End of the Bargain.

The Clean Water Act operates within a framework wherein the EPA and states work together to clean the nation's waters.³⁰⁵ Under this framework, federal money is made available to the state contingent on its creation of a regulatory scheme that is at least as stringent as federal requirements. States can tailor federal standards like water quality criteria, establish compliance strategies, implement permitting programs, and enforce rules.³⁰⁶

A carrot-and-stick approach, however, is fundamental to cooperative federalism, as the federal government can offer significant incentives to states for implementing the Act but can also impose federal requirements when state regulations do not meet the requirements of the Act.³⁰⁷ Congress made federal oversight a key component of the cooperative federalism framework embodied by the Clean Water Act because, prior to the passage of the statute, water pollution strategies were left up to the states with the federal government providing financial assistance.³⁰⁸ For twenty-five years leading up to the 1972 amendments to the Clean Water Act, few states set water quality standards, much less enforced them.³⁰⁹

Thus, the Clean Water Act's goal to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters"³¹⁰ is dependent on a cooperative relationship between EPA and the State of Florida. State inaction results in unnecessary delays in achieving this goal.³¹¹ Here, the state has failed to uphold its end of the bargain and follow the requirements of the Clean

³⁰⁴ Impacts of Water Quality on the Southwest Florida Economy, Final Report, vi, Green Economics (Dec. 20, 2023), available at [Economic Impact of Water Quality Study | Sanibel-Captiva Conservation Foundation \(sccf.org\)](https://www.sccf.org/Economic-Impact-of-Water-Quality-Study-Sanibel-Captiva-Conservation-Foundation).

³⁰⁵ *American Farm Bureau v. Fed'n v. United States EPA*, 792 F.3d 281, 288 (3rd Cir. 2015).

³⁰⁶ See Robert L. Fischman, *Cooperative Federalism and Natural Resources Law*, 14 N.Y.U. Envtl. L. J. 179, 189 (2005).

³⁰⁷ See *id.*

³⁰⁸ Oliver A. Houck, *Cooperative Federalism, Nutrients, and the Clean Water Act: Three Cases Revisited*, 44 ENVTL. L. REP. 10426, 10426 (2014).

³⁰⁹ *Id.*

³¹⁰ 33 U.S.C. § 1251(a).

³¹¹ Bonnie A. Malloy, *Testing Cooperative Federalism: Water Quality Standards Under the Clean Water Act*, 6 Env'tl & Energy L. & Pol'y J. 63, 100 (2011).

Water Act. It has been five years since the state was required to perform its triennial review of water quality criteria and five years since EPA issued final recommended criteria for cyanotoxins. As of today, EPA has still not received the state's triennial review, nor an adequate explanation as to why cyanotoxin standards should not be adopted by the state. All the while, Florida's waters continue to be harmed by wide-spread harmful algal blooms.

It is in circumstances like these that Congress envisioned the EPA exercising its oversight responsibilities and promulgating federal standards where state standards are absent and other pollution controls remain inadequate.³¹² To do so, would not only protect the state's residents and visitors from the toxic health effects of microcystins and cylindrospermopsin, but also maintain the *balance* of the cooperative federalism framework of one of our nation's landmark environmental laws.

4. EPA Must Move Expeditiously in Establishing Cyanotoxin Standards for Florida.

Petitioners submit that EPA must act expeditiously and that it is unnecessary to support the criteria in a rule on a water-body-by-water-body basis.³¹³ Florida has failed to fulfill its obligations to complete a triennial review of its water quality standards and submit its findings to

³¹² In its decision to promulgate a final rule establishing numeric nutrient criteria for priority toxic pollutants for 14 states, EPA explained:

A second strong argument against requiring EPA to shoulder a heavy burden to exercise section 303(c)(4)(B) authority is that it would invert the traditional statutory scheme of EPA as national overseer and States as the entity with the greatest local expertise. CWA provides States the flexibility to tailor water quality standards to local conditions and needs based upon their wealth of first-hand experience, knowledge and data. *However, this allowance for flexibility is based on an assumption of reasoned and timely State action, not an abdication of State responsibility by failure to act.*

U.S. Env'tl. Prot. Agency, Water Quality Standards; Establishment of Numeric Nutrient Criteria for Priority Toxic Pollutants; States' Compliance, 57 Fed. Reg. 60848 (Dec. 22, 1992) (emphasis added).

³¹³ EPA's decision not to engage in such a cumbersome, costly, and time-consuming process when it established numeric criteria for priority toxic pollutants for the State of California is instructive. As the EPA explained in its Final Rule, "To conduct research and studies of each stream segment or water body across the State of California to demonstrate that for each toxic pollutant for which EPA has issued CWA section 304(a) criteria guidance there is a 'discharge or presence' of that pollutant which could reasonably 'be expected to interfere with' the designated use would impose enormous administrative burden and would be contrary to the statutory directive for swift action manifested by the 1987 addition of section 303(c)(2)(B) to the CWA." Moreover, because these criteria are ambient criteria that define attainment of the designated uses, their application to all water bodies will result in additional controls on dischargers only where necessary to protect the designated uses. *See* Environmental Protection Agency, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California, 65 Fed. Reg. 31682, 31687 (May 18, 2000) (emphasis added).

EPA. Further, it has failed to act upon EPA's 304(a) recommended criteria for cyanotoxins and has offered no other scientifically defensible criteria in their place. The state has offered no indication when it intends to complete its review, much less issue any criteria aimed at reducing the presence of cyanotoxins in state waters. To ignore the state's failure to adhere to the requirements of the triennial review process set forth in 303(c)(1) and require additional studies, would simply reward inaction. Accordingly, EPA should promulgate a rule that applies to all Class I, Class II, and Class III waters in the state.

VIII. CONCLUSION

More than five years ago, Petitioners Center, SCCF, and Calusa Waterkeeper made a plea to the State of Florida to establish water quality standards for cyanotoxins. Our request, and similar requests from numerous conservation organizations, concerned citizens, local governments, elected officials, and others have gone unanswered.

Petitioners urge the EPA to honor the years of work the agency has dedicated to researching and developing its recommended criteria, appreciate the gravity of the crisis that is unfolding in Florida, and exercise its Congressionally delegated powers to make a determination pursuant to the Clean Water Act, 33 U.S.C. § 1313(c)(4)(B), that:

- (1) new water quality criteria for cyanotoxins are necessary for Florida to protect designated uses, and
- (2) promulgate federal regulations applicable to Florida, pursuant to 33 U.S.C. § 1313(c)(4), setting forth new water quality criteria for microcystins and cylindrospermopsin, as necessary to meet the requirements of the Act.

Doing so will undoubtedly help protect residents and visitors from the wide-spread harm being inflicted by harmful algal blooms across our state.

Sincerely,

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Rebecca S. Bruner
Mayor of the City of Stuart
121 SW Flagler Avenue
Stuart, Florida 34994
(772) 288-5312

List of Exhibits

- Exhibit 1: Petition for Rulemaking, From the Center for Biological Diversity, Sanibel-Captiva Conservation Foundation, and Calusa Waterkeeper to Florida Department of Environmental Protection and Environmental Regulation Commission to Establish Water Quality Standards for Cyanotoxins in Florida Surface Waters (May 23, 2019).
- Exhibit 2: State of Florida, Department of Environmental Protection, In Re: Petition to Initiate Rulemaking to Establish Water Quality Criteria for Cyanotoxins, OGC Case No. 19-0419, Order (June 25, 2019).
- Exhibit 3: Letter from Center for Biological Diversity, Sanibel-Captiva Conservation Foundation, Calusa Waterkeeper and Conservancy of Southwest Florida to Florida Department of Environmental Protection, Re: Comments on Triennial Review of Water Quality Standards (Cyanotoxin Criteria) (May 19, 2021).
- Exhibit 4: Florida Department of Environmental Protection, Notice of Development of Rulemaking (Fla. Admin. Register, Vol. 45, No. 62).
- Exhibit 5: Florida Department of Environmental Protection, Triennial Review of Florida's Water Quality Standards, Division of Environmental Assessment & Restoration (May 5, 2021).
- Exhibit 6: Florida Blue Green Algae Task Force Consensus Document #1.
- Exhibit 7: Letter from Center for Biological Diversity, Sanibel-Captiva Conservation Foundation, Calusa Waterkeeper, Sierra Club, Natural Resources Defense Council, Surfrider Foundation, Friends of the Everglades, Waterkeeper Alliance, and Bullsugar (now VoteWater), to Kaitlyn Sutton, Florida Department of Environmental Protection (Nov. 18, 2019).
- Exhibit 8: Letter from Don Donaldson, Deputy County Administrator, Martin County, Florida to Kaitlyn Sutton, Florida Department of Environmental Protection, (May 30, 2019).



December 2024 General Fund Financial Report

**Town Commission Meeting
January 9, 2025**

Topics To Be Covered

General Fund

- 2024-2025 Revenues
- 2024-2025 Expenses
- Balance Sheet

**Town of Jupiter Island
FY 2024/2025 Budget**

Account Description	Adopted Budget 2024-2025	YTD Actual 12/31/2024	Target 25%
Total General Fund Revenues	\$12,530,781	\$8,996,341	72%
Transfers from Reserves	\$510,000	\$0	0%
Total Revenues	\$13,040,781	\$8,996,341	69%
Total Administration	\$3,480,425	\$789,499	23%
Total Public Safety	\$6,055,175	\$1,674,844	28%
Total Building Department	\$1,352,285	\$360,413	27%
Total Public Works	\$2,152,896	\$376,879	18%
Total General Fund Expenditures	\$13,040,781	\$3,201,634	25%
Year to Date Net Income		\$5,794,707	

2024-2025 Revenue

Town of Jupiter Island

Account Description	Adopted Budget 2024-2025	PYTD Actual 12/31/2023 2023-2024	YTD Actual 12/31/2024 2024-2025	Actual % of Budget (Target 25%) 2024-2025
Ad Valorem	\$9,927,402	\$7,695,780	\$8,489,393	86%
Total Other Taxes and Fees	\$333,000	\$36,713	\$26,451	8%
Total Licenses and Permits	\$850,500	\$158,106	\$169,263	20%
Total Intergovernmental Revenue	\$325,100	\$15,521	\$14,689	5%
Total Charges for Services	\$131,000	\$34,078	\$20,750	16%
Total Fines and Forfeits	\$2,000	\$344	\$725	36%
Total Miscellaneous Revenues	\$257,700	\$164,209	\$102,701	40%
Transfers from Interfunds	\$704,079	\$170,379	\$172,370	24%
Subtotal Revenues	\$12,530,781	\$8,275,130	\$8,996,341	72%
Transfer from Reserves	\$510,000	\$0	\$0	
Total General Fund Revenues	\$13,040,781	\$8,275,130	\$8,996,341	69%

2024-2025 Expenses by Department

Account Description	Adopted Budget 2024-2025	PYTD Actual 12/31/2023	YTD Actual 12/31/2024	Actual % of Budget (Target 25%)
Total Administration - Payroll	\$1,395,679	\$259,859	\$327,700	23%
Total Administration - Benefits	\$892,571	\$178,354	\$189,689	21%
Total Administration - Operating	\$1,160,175	\$309,076	\$261,265	23%
Subtotal	\$3,448,425	\$747,289	\$778,654	23%
Total Administration - Capital	\$32,000	\$0	\$10,844	34%
Total Administration	\$3,480,425	\$747,289	\$789,499	23%
Total Public Safety - Payroll	\$3,033,324	\$630,273	\$755,736	25%
Total Public Safety - Benefits	\$1,031,813	\$172,357	\$204,735	20%
Total Public Safety - Operating	\$1,433,908	\$372,971	\$347,223	24%
Subtotal	\$5,499,045	\$1,175,601	\$1,307,693	24%
Total Public Safety - Capital	\$556,130	\$325,645	\$367,150	66%
Total Public Safety	\$6,055,175	\$1,501,246	\$1,674,844	28%
Total Building - Payroll	\$524,794	\$84,949	\$123,672	24%
Total Building - Benefits	\$171,337	\$27,304	\$38,334	22%
Total Building - Operating	\$646,154	\$55,649	\$198,407	31%
Subtotal	\$1,342,285	\$167,901	\$360,413	27%
Total Building - Capital	\$10,000	\$0	\$0	0%
Total Building Department	\$1,352,285	\$167,901	\$360,413	27%
Total Public Works - Payroll	\$729,866	\$143,617	\$148,462	20%
Total Public Works-Benefits	\$457,028	\$81,684	\$96,587	21%
Total Public Works - Operating	\$780,002	\$100,374	\$121,467	16%
Subtotal	\$1,966,896	\$325,675	\$366,516	19%
Total Public Works - Capital	\$186,000	\$0	\$10,363	6%
Total Public Works	\$2,152,896	\$325,675	\$376,879	18%
Total General Fund Expenditures	\$13,040,781	\$2,742,111	\$3,201,634	25%

Balance Sheet as of 12/31/2024

Assets

CASH GENERAL ACCOUNT - SEACOAST	\$	1,060,658
MONEY MARKET-SEACOAST	\$	5,726,338
CASH PAYROLL - SEACOAST	\$	50,002
CASH FLEX SPENDING - SEACOAST	\$	57,074
INVESTMENT POOL	\$	6,875,163
INVESTMENT - SBA	\$	3,507,735
PETTY CASH	\$	550
ACCOUNTS RECEIVABLE	\$	9,040
ACCOUNTS REC. - RETIREE BENEFITS	\$	4,839
DUE FROM BEACH PROTECTION	\$	38,990
DUE FROM ELECTRIC UNDERGROUND	\$	318,726
DUE FROM UTILITIES	\$	735,233
DUE FROM CHRISTMAS FUND	\$	36,229
Total Assets	\$	18,420,576

Liabilities

ACCOUNTS PAYABLE	\$	49
DUE TO BEACH PROTECTION	\$	5,548
DUE TO SPECIAL LAW ENFORCEMENT	\$	21
DUE TO O&M	\$	7,290
DUE TO OTHER GOV. UNITS	\$	2,341
ACCRUED PAYROLL LIABILITIES	\$	15,888
OVERPAYMENTS	\$	1,284
Total Liabilities	\$	32,421

Reserves/Fund Balances

NONSPENDABLE PREPAID	\$	127,833
RESTRICT- ENFORCE FL BLDG CODE	\$	3,865,046
ASSIGNED FOR EMERGENCIES	\$	1,000,000
ASSIGNED FOR COMPENSATED AB	\$	115,000
ASSIGNED FOR UNINSURED LOSS	\$	80,000
FUND BALANCE	\$	7,490,515
CHANGE IN FUND BALANCE - Current	\$	5,794,707
CHANGE IN FUND BALANCE - PY	\$	(84,947)
Total Reserves/Fund Balances	\$	18,388,155

Total Liabilities and Fund Balance

\$ 18,420,576

General Fund Reserves

Account Description	Audited YE 2020	Audited YE 2021	Audited YE 2022	Audited YE 2023	Amended Budget FY 2024*
Beginning Fund Balance (Reserves)	9,095,126	8,095,873	9,033,098	6,237,564	9,298,494
Transfer from / to General Fund Reserves	509,951	1,610,431	2,247,916	3,060,930	-
Amount Budgeted From Reserves	(988,604)	(548,206)	(793,404)	-	(335,000)
Budget Amendment From Reserves	(520,600)	(125,000)	(385,000)	-	-
Total Available Fund Balance	8,095,873	9,033,098	10,102,610	9,298,494	8,963,494
Assigned to Uninsured Losses	80,000	80,000	80,000	80,000	80,000
Assigned to Compensated Absences	115,000	115,000	115,000	115,000	115,000
Assigned to Beautification, Scholarship, Public Safety				176,170	176,170
Assigned to Conservation Projects				431,989	431,989
Assigned to Emergencies	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Assigned to ARPA			312,393		
Restricted-Enforcement of FL Building Code				3,865,046	3,865,046
Unassigned Fund Balance (Reserves)	6,900,873	7,838,098	8,595,217	7,495,335	7,160,335
Total Fund Balance (Reserves)	8,095,873	9,033,098	10,102,610	13,163,540	12,828,540

*Estimated/Unaudited at time of this Report

Memorandum



To: Mayor and Commission

From: Catherine Harding, Building, Planning and Zoning Director

Date: December 20, 2024

Re: Building Department Report, December 2024

This report covers November 22nd to December 19th, 2024. There were 14 Building Permits Issued with a value of \$1,093,619.00 with \$22,438.00 in permit fees collected. Our Inspectors made 90 inspections of that 9 were issued a C.O. Staff reviewed and closed out 8 old permits held over in our system.

Year to date there were 253 permits issued with a total construction value of \$75,542,035.00.

Code Compliance responded to 24 complaints. They consisted of 3 construction site maintenance issues, 1 expired permit inspection, 4 noise complaints, 1 property maintenance complaint, 2 starting work too early warnings, 8 vehicles in the right of way, and 4 violations of the LDR's. Frank Logalbo continues to get full cooperation from the builders and homeowners.

Ordinance No. 401, merging Alternate Development Standards with the general provisions of the Land Development Regulations and Ordinance No. 402 regulating Short-Term Rentals, were both passed on a second reading. We will monitor advertising for Short-Term Rentals and inspect any activity that would indicate the need to contact the owner of the property and advise them that they are required to register with the town.

We are working with Kimley Horn to revise our Comprehensive Plan. The goal is to maintain the character of the Town while updating the required regulations. A public meeting is scheduled to involve the residents in the decision-making process on January 23rd, 2025. A flyer will be sent out to all residents.

There were no Board of Adjustment Meetings, but we did hold an Impact Review Committee Meeting for December. Currently, we are processing one BOA application and one IRC application for the January/February meetings. Year to date we received 6 applications for the BOA and 20 applications for the IRC. A fee of \$1,000.00 was collected for both the BOA and the IRC meetings totaling \$2,000.00.

Our office met with several owners and representatives to discuss their plans for construction in the new year. The trend now seems to be to renovate and upgrade their properties to meet current codes as opposed to tear down and rebuild. The cost of new construction may influence this decision. Our builders have been cooperative and respectful of the town and our ordinances.

Enforcement Totals By Category

12/19/24

Agenda Item 10

CONSTRUCTION SITE MAINTENANCE	Total Entries:	3
EXPIRED PERMIT	Total Entries:	1
NOISE COMPLAINT	Total Entries:	4
PERMIT EXTENSION	Total Entries:	1
PROPERTY MAINTENANCE	Total Entries:	1
STARTING WORK TO EARLY	Total Entries:	2
VEHICLE IN RIGHT OF WAY	Total Entries:	8
VIOLATION OF LDR'S	Total Entries:	4

Total Records: 24

Population: All Records
Enforcement.DateFiled Between 11/22/2024 12:00:00 AM AND 12/19/2024 1

Enforcement List - Inspection Summary

12/19/24

Initial Complete 02 11/28/24 11/27/24 FRANK LOGALBO

Enforcement Number	Address	Filed	Status	Closed
E2024-0258	265 S BEACH RD	11/27/24	CLOSED - VERBAL WARNING ISS	11/27/24
STARTING WORK TO EARLY (BEFORE 8:30 AM)				
Inspection Type	Status	Result	Scheduled	Completed Inspector

Enforcement Number	Address	Filed	Status	Closed
E2024-0259	195 GOMEZ RD	12/02/24	CLOSED - VERBAL WARNING ISS	12/02/24
TRUCK AND TRAILER PAKED IN ROADWAY (PRSSSURE WASHER)				
Inspection Type	Status	Result	Scheduled	Completed Inspector

Enforcement Number	Address	Filed	Status	Closed
E2024-0260	36 N BEACH RD	12/02/24	CLOSED - COMPLIED	12/02/24
STARTING WORK TO EARLY THEY WERE WARNED AND THEY STOPPED				
Inspection Type	Status	Result	Scheduled	Completed Inspector

Enforcement Number	Address	Filed	Status	Closed
E2024-0261	15 N BEACH RD	12/04/24	CLOSED - VERBAL WARNING ISS	
DELIVERY TRUCK IN ROADWAY NO FLAGMEN				
Inspection Type	Status	Result	Scheduled	Completed Inspector

Enforcement Number	Address	Filed	Status	Closed
E2024-0262	45 N BEACH RD	12/04/24	OPEN - LETTER SENT	

Enforcement List - Inspection Summary

12/19/24

DYING BUFER
EMAIL SENT TO OWNER

Inspection Type	Status	Result	Scheduled	Completed	Inspector
Follow-Up	Scheduled	00	12/05/24		FRANK LOGALBO

Enforcement Number Address Filed Status Closed
E2024-0263 197 S BEACH RD 12/04/24 CLOSED - COMPLIED
VEHICLES PARKED ON RIGHT OF WAY VEHICLES MOVE

Inspection Type	Status	Result	Scheduled	Completed	Inspector
Initial	Scheduled	00	12/05/24		FRANK LOGALBO

Enforcement Number Address Filed Status Closed
E2024-0264 51 N BEACH RD 12/04/24 CLOSED - VERBAL WARNING ISS
YOU CAN SEE THE DUMPSTER ON PROPERTY

Inspection Type	Status	Result	Scheduled	Completed	Inspector
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Enforcement Number Address Filed Status Closed
E2024-0265 7 N BEACH RD 12/04/24 CLOSED - NO VIOLATION 12/04/24
NO TRESPASSING SIGN ON PRIVATE PROPERTY RED/WHITE WRONG COLORS

Inspection Type	Status	Result	Scheduled	Completed	Inspector
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Enforcement Number Address Filed Status Closed
E2024-0266 55 LINKS RD 12/05/24 CLOSED - VERBAL WARNING ISS 12/05/24
CUTTING TILE OUTSIDE

Inspection Type	Status	Result	Scheduled	Completed	Inspector
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Enforcement Number Address Filed Status Closed

Enforcement List - Inspection Summary

12/19/24

E2024-0267 312 S BEACH RD 12/05/24 CLOSED - COMPLIED 12/05/24
TRACTOR TRAILER MAKING A DELIVERY BLOCKING THE ROAD WITH OUT A FLAGMEN

Inspection Type	Status	Result	Scheduled	Completed	Inspector
Initial	Complete	02	12/11/24	12/10/24	FRANK LOGALBO
Enforcement Number	Address	Filed	Status	Closed	
E2024-0268	207 S BEACH RD	12/11/24	EXPIRED PERMIT - CLOSED ADM		
EXPIRED PERMIT (DRIVEWAY)					
Inspection Type	Status	Result	Scheduled	Completed	Inspector

Enforcement Number	Address	Filed	Status	Closed	
E2024-0269	210 S BEACH RD	12/11/24	OPEN - VERBAL WARNING ISSUE		
DAMAGE TO DRIVEWAY					
Inspection Type	Status	Result	Scheduled	Completed	Inspector
Follow-Up	Scheduled	00	01/31/25		FRANK LOGALBO

Enforcement Number Address Filed Status Closed
E2024-0270 122 N BEACH RD 12/10/24 CLOSED - COMPLIED 12/10/24
TRUCK AND TRAILER IN RIGHT OF WAY
THEY MOVED INTO DRIVEWAY

Inspection Type	Status	Result	Scheduled	Completed	Inspector
Enforcement Number	Address	Filed	Status	Closed	
E2024-0271	77 S BEACH RD	12/06/24	CLOSED - VERBAL WARNING ISS	12/06/24	
POSSAWING OUTSIDE					
Inspection Type	Status	Result	Scheduled	Completed	Inspector

Enforcement List - Inspection Summary

12/19/24

Enforcement Number	Address	Filed	Status	Closed
E2024-0272	15 N BEACH RD	12/10/24	CLOSED - VERBAL WARNING ISS	12/10/24
DELIVERY TRUCK PARKED IN RIGHT OF WAY				
Inspection Type	Status	Result	Scheduled	Completed Inspector
Enforcement Number	Address	Filed	Status	Closed
E2024-0273	488 S BEACH RD	12/11/24	OPEN - 2ND VERBAL WARNING I	
CUTTING CEMENT AND TILE OUTSIDE AROUND THE POOL				
Inspection Type	Status	Result	Scheduled	Completed Inspector
Enforcement Number	Address	Filed	Status	Closed
E2024-0274	484 S BEACH RD	12/12/24	CLOSED - COMPLIED	12/12/24
LANDSCAPERS STARTING WORK BEFORE 8:30				
THEY GOT WARNED AND STOPPED TILL 8:30				
Inspection Type	Status	Result	Scheduled	Completed Inspector
Enforcement Number	Address	Filed	Status	Closed
E2024-0275	77 N BEACH RD	12/16/24	CLOSED - COMPLIED	12/16/24
STUART PLUMBING SEPTIC TRUCK PARKED ON ROADWAY				
Inspection Type	Status	Result	Scheduled	Completed Inspector
Enforcement Number	Address	Filed	Status	Closed
E2024-0276	75 N BEACH RD	12/16/24	CLOSED - COMPLIED	12/16/24
RECEIVED A CALL FROM BOB ROUNDEN REGARDING A VEHICLE STICKING OUT OF THE DRIVEWAY INTERFERING WITH THE TRAFFIC				

Enforcement List - Inspection Summary

Inspection Type	Status	Result	Scheduled	Completed	Inspector
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Population: All Records
Enforcement.DateFiled Between 11/22/2024 12:00:00 AM AND 12/19/2024 11:59:59 PM

Upcoming Town Meetings and Events 2025

Date	Day	Time	Event/Meeting	Location
January 1	Wednesday	All Day	New Year Holiday - Town Hall Closed	
January 8	Wednesday	9am	Town Coffee with Commissioner Scott	Island Room
January 8	Wednesday	10am	SMRU Board / Beach Protection Meeting	Island Room
January 9	Thursday	9am	Town Commission Meeting	Island Room
January 20	Monday	All Day	MLK Day Holiday - Town Hall Closed	
January 23	Thursday	9am	Comprehensive Plan Review Workshop	Island Room
January 29	Wednesday	9am	Waterfront Setback Line Study Workshop	Island Room
January 30	Thursday	9am	Board of Adjustment Meeting	Island Room (Required)
February 5	Thursday	9am	Impact Review Committee	Island Room (Required)
February 14	Friday	8am	Qualifying for Municipal Election Begins	Town Clerk's Office
February 17	Monday	All Day	President's Day - Town Hall Closed	
February 18	Tuesday	9am	Town Coffee w/ Commissioner Taddeo	Conference Room
February 18	Tuesday	10am	SMRU Board and Beach District Meetings	Island Room
February 19	Wednesday	9am	Town Commission Meeting	Island Room
February 27	Thursday	9am	Board of Adjustment Meeting	Island Room (If Required)
February 28	Friday	4pm	Qualifying for Municipal Election Ends	Town Clerk's Office
March 6	Thursday	9am	Impact Review Committee	Island Room (If Required)
March 18	Tuesday	7am - 7pm	Municipal Election	Island Room
March 20	Thursday	9am	Town Coffee with Mayor Townsend	Conference Room
March 20	Thursday	10am	SMRU Board and Beach Protection Meetings	Island Room
March 21	Friday	9am	Town Commission Meeting and Swearing in of Newly Elected Officials	Island Room
March 27	Thursday	9am	Board of Adjustment Meeting	Island Room (If Required)

January 1, 2025

Key
Changes from Previous Schedule
Board of Adjustment
Impact Review Committee
Town Hall Closed
Municipal Election

Agendas posted on Town Website: www.townofjupiterisland.com prior to the meeting