Task 3 Summary Report
(DEP Grant INV13)

Reporting Period: July 01, 2021 – April 30, 2022

Submission Date: April 30, 2022

Submitted by: Daniel Kolodny and KJ Ayres

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The Indian River Lagoon National Estuary Program
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Task Identification:

1) A minimum of eight GeoCollaborate sessions using two instances, delivered to the IRL
Dates of Webinar Sessions:

Instance 2: GeoCollaborate putting data to work: IRL Hindcast

(1) 12/06/2021, (2) 01/06/2022 10 AM, (3) 01/06/2022 2 PM, and (4) 01/10/2022

Instance 3: GeoCollaborate**:** Informing Harmful Algal Bloom Emergency Response

(5) 04/14/2022 10AM, (6) 04/14/2022 2PM, (7) 04/15/2022 10 AM, and (8) 04/15/2022 2PM

Videos of each instance can be accessed at the following:
Instance 2: https://www.youtube.com/watch?v=Qy57UByBv3I
Instance 3: https://www.youtube.com/watch?v=OpQwnCCHUN4

2) Copies of agendas, attendance lists, and presentations for each session

Agenda:
a. GeoCollaborate putting data to work: IRL Hindcast (pg. 3)
b. GeoCollaborate: Informing Harmful Algal Bloom Emergency Response (pg.4 -5)

Attendance List:
c. GeoCollaborate putting data to work: IRL Hindcast (pg. 6 -13)
d. GeoCollaborate: Informing Harmful Algal Bloom Emergency Response (pg. 14-20)

Presentations:
e. GeoCollaborate putting data to work: IRL Hindcast (pg. 21-44) YouTube Link Included
f. GeoCollaborate: Informing Harmful Algal Bloom Emergency Response (pg. 45-58) YouTube Link Included

3) A summary report and presentation to Department staff summarizing the outcomes of the first three tasks will be submitted to the Department for review and comments. (pg. 2)

Summary Report

During the task deliverables 1-3, the IRLNEP and stakeholders began to examine the capabilities and limitations of GeoCollaborate (GC) in use for HAB planning and emergency response. During task 1, we learned that tabular data does not easily fit into GC if there is no spatial component assigned to the dataset. During task 2, we learned that the IRL Council stakeholders are interested in utilizing GC for data display, and during task 3 we believe stakeholders began to realize the next step to utilize the GC tool, is to make stakeholder data readily available in a web feature services. During the third instance, Instance 3: Informing Harmful Algal Bloom Emergency Response some of the DEP department attended and witnessed the conversation with stakeholders. KJ Ayres reached out to Dr. Sotolongo Lopez at the Florida Department of Environmental Protection (FDEP) about scheduling any additional meetings.

In Task 2, the IRLNEP began to identify some of struggles and limitations of utilizing the GeoCollaborate platform. These included limitations in analysis functions, time series enabled data, data formatting, symbology, the animation tool, and lack of communication capabilities. Once task 3 began, the IRLNEP received positive feedback and interest in the capabilities of GeoCollaborate for use in harmful algal blooms. During the eight sessions, stakeholders began to identify some limitations in both GeoCollaborate and with procedures for individual data trust ability and sharing.

The questions we received from all eight sessions are publicly available on the onelagoon.org website, but some questions that stood out to the IRLNEP team are shown below.

- Can metadata be linked to collaborative datasets, and if not, is there a potential for misinterpretation of data by users?
- How do you envision its use for additional data synthesis needs?
- When looking at a particular dataset, would the follower know or be able to see when the data was last updated?
- Is the data QA/QC done in GeoCollaborate?
- Why wouldn't a user want to go to a dashboard first?
- How does GeoCollaborate ensure that data cannot be manipulated?
- Will data displaying be a responsibility of each agency or the lead agency, in this case StormCenter Communications?
- Is the goal to have a statewide extent for instances? Or will it be intended for localized/regional event response tools?

GeoCollaborate has not been used to date for HAB communication and collaboration, but throughout the course of this project, several limitations have been identified as stated above. However, IRLNEP staff and participants in the webinar series recognize GeoCollaborate's strengths including bringing data together in one platform, the ability to view data from disparate sources without manipulations, and unlimited user capabilities.

Agenda Instance 2: GeoCollaborate putting data to work: IRL Hindcast

ONE LAGOON
ONE COMMUNITY · ONE VOICE
INDIAN RIVER LAGOON
NATIONAL ESTUARY PROGRAM

Webinar
Monday, January 10, 2022, 10:00AM

Opening Remarks – Duane De Freese – 3-5 minutes
(1-minute wrap up notice at 4-minutes)

Presentation – Chuck Jacoby (Background) – 10 minutes
(5-minute notice at 5-minute mark, 1 minute wrap up notice at 9-minutes; please introduce KJ Ayres at your 1-minute Wrap)

Presentation - KJ Ayres (Iteration and Models) – 15 minutes
(5-minute notice at 10-minute mark, 1-minute wrap up notice at 14-minutes)

Introduction of GeoCollaborate – Duane De Freese – 1-3 minutes
(1-minute wrap up notice at 2-minute; please introduce Ellen and Dave at 1-minute wrap-up)

Presentation – Dave Jones (GeoCollaborate) - 25 minutes
(5-minute notice at 20-minute mark, 1-minute wrap up notice at 24-minutes)

Question and Answer Session– Daniel Kolodny/Duane De Freese – 15 – 30 minutes
(5-minute notice at 20-minute mark, 1-minute wrap up notice at 29-minutes)

Session Wrap Up – Duane De Freese – 4-5 minutes
(1-minute wrap up notice at 4-minutes)

Housekeeping for Webinar:

- **All panelists are to log on no later than 9:50AM on the 10th. The practice session willopen at 9:40AM.**
- Panelists - I recommend to having your presentation already loaded to try to get the transition time tighter.
- We will be sharing our own slides.
- This webinar will be recorded.
- IRL Council Panelists, please use the Zoom Background I sent you earlier today.
- Instead of communicating cues through the Chat function, we will use the group text.
- I will be online no later than 8:00AM on Monday, January 10th. If you are having an issue, please email/call me so we can work it out before the 10:00AM go time.
- Please call or email me should you have any questions: malcolm@irlcouncil.org – (860) 416-3102.
- Remember, if you are not a panelist, you will need to register to watch the webinar: REGISTER HERE
- We will begin the webinar exactly at 10:00AM. We will give attendees a few minutes to log on before we begin presentations, but we will go live at 10:00AM sharp.

Agenda Instance 3: Informing Harmful Algal Bloom Emergency Response

Webinar Run Down
Friday, April 15th, 2022 10:00AM – 11:30AM & 2:00PM – 4:00PM

Opening Remarks – Duane De Freese – 3-5 minutes
(1-minute wrap up notice at 4-minutes)

Connecting the Audience – Dave Jones – 5- 8~ minutes
(1-minute wrap up notice at 4-minutes)

"Call" Meeting to Order – Chuck Jacoby (Set Up like HAB Meetings) – 3-5 minutes
(1-minute wrap up notice at 4-minutes)

Emergency Response Demonstration:

- Issues/Data Layers (driven by Charles Jacoby)
  - Dave Jones displays data layers
  - Duane De Freese banter about data layers (what is going on?)

Chuck's List of topics:

1) True Color and Modeled Satellite images
   - *SJRWMD: SJRWMD-CHLA Modeled Data*
2) Phytoplankton (Taxa and cell counts)
   - *FWC Nanoplankton: FWC Nanoplankton Reports*
   - *UF-Algal Bloom Reports: UF-Total Algal Biomass*
3) Potential Toxicity
   - *Open Protecting Florida Together Link in 'Key Points' Windows*
4) Water Quality Parameters (Salinity and Temperature)
   - *SJRWMD: March 2016 - Temperature (C)*
   - *SJRWMD: March 2016 - Salinity (g/kg)*
5) DO
   - *SJRWMD: March 2016- Dissolved Oxygen (mg/L)*
6) Forecast (Air Temperature, Wind speeds and direction, cloud cover)
   - *Weather: NOAA Current Weather and Wind Station (temp, speed and direction)*
   - *Weather: GOES- DayTime Clouds (cloud cover)*
   - *Weather: NWS Rainfall Fcst (not sure if we should use 3 or 7 day)*
7) Fish Kill
   - *Fish Kill: Fish Kill Pics Submitted*
8) Sample Executive Order
   - *Executive Order: Brevard - Executive Order*
9) FWC Call-Up Reports
   - *FWC Fish Kill Hotline - FWC Fish kill Hotline Calls (March 2016)*
10) Boat Ramp Locations/Dumpsters/CHLA
   - *Boat Ramp: Boat Access*
   - *SJRWMD: SJRWMD - CHLA Modeled data*
11) DOH Physical Warning Signs
   - *Graphic: Fish Kill Reports*

Dashboard Showcase for Briefings – Dave Jones

- Communicating the Bloom (Internal Inter-Agency/Public Notification)

Summary of Operational Readiness – KJ Ayres

- Data Security, Data Ownership, Data Permissions
- Data Types accepted by GeoCollaborate

Question and Answer Session– Daniel Kolodny – 15 – 30 minutes
(5-minute notice at 20-minute mark, 1-minute wrap up notice at 29-minutes)

Session Wrap Up – Duane De Freese – 4-5 minutes
(1-minute wrap up notice at 4-minutes)

Housekeeping for Webinar Run Through:

- **All panelists are to log on no later than 9:50AM/1:50PM on the 15th. The practice session willopen at 9:45AM/1:45PM.**
- Panelists - I recommend to having your presentation already loaded to try to get the transition times tighter.
- We will be sharing our own slides.
- This session will be recorded.
- IRL Council Panelists, please use the standard IRLNEP Zoom Background.
- Instead of communicating cues through the Group Chat and I will send you a test text by 9:00AM tomorrow.
- I will be online no later than 8:00AM on Friday the 15th. If you are having anissue, please email/call me so we can work it out before the 10:00AM/2:00PM go time.
- Please call or email me should you have any questions: malcolm@irlcouncil.org – (860) 416-3102.
- We will begin the webinars at exactly 10:00AM and 2:00PM.
- All links have been sent in the body of the calendar invitation. Please have this ready prior to go time.

Attendance List that attended the four GeoCollaborate putting data to work: IRL Hindcast

Name	City	State/ Prov.	Organization	Job Title
Meghan Abbott	St. Petersburg	FL	Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute	Associate Research Scientist
René Baumstark	St. Petersburg	FL	FWC FWRI	Section Leader
J. Cho	Daytona Beach	FL	Bethune-Cookman University	Professor
Kathy LaMartina	Stuart	FL	South Florida Water Management District	Regional Representative
Marcus Beck	St. Petersburg	FL	Tampa Bay Estuary Program	Program Scientist
Russell Hansen	Titusville	FL	National Parks Service	Biological Science Technician
M. Hanisak	Fort Pierce	FL	FAU Harbor Branch	Research Professor
Jennifer DiMaio	Atlanta	GA	EPA	IRLNEP Regional Coordinator
Valerie Paul	Fort Pierce	FL	Smithsonian Institution	Head Scientist
Derek Tremain	Melbourne	FL	Florida Fish and Wildlife Conservation Commission	Assistant Research Scientist
Sherry Larkin	Gainesville	FL	Florida Sea Grant	Director
Debbie Leffler	St. Petersburg	FL	Florida Fish & Wildlife Conservation Commission	Research Administrator II
Marcy Frick	Jacksonville	FL	Tetra Tech, Inc.	Senior Water Resource Engineer
Marcy Frick	Jacksonville	FL	Tetra Tech, Inc.	Senior Water Resource Engineer
Quay Dortch	Silver Spring	MD	NOAA/CSS	Senior HAB Scientist

Jim Lappert	Vero Beach	FL	St Lucie County	Water Quality Director
Diana Turner	Tallahassee	FL	FDEP	Environmental Consultant
Ashley Malcolm	Vero Beach	FL	IRL Council	Administrative Coordinator
Annie Roddenberry	New Smyrna Beach	FL	Florida Fish and Wildlife Conservation Commission	Biological Scientist
Annie Roddenberry	New Smyrna Beach	FL	Florida Fish and Wildlife Conservation Commission	Biological Scientist
Eric Charest	Vero Beach	FL	Indian River County	Natural Resources Manager
Sandra Bogan	Fort Pierce	FL	St. Lucie County	Resilience Navigator
Nicole Raineault	St. Petersburg	FL	Florida Institute of Oceanography	Chief Scientist
Gina Alvarez	Panama City	FL	Florida Fish and Wildlife Conservation Commission	Biologist
Douglas Scheidt	Kennedy Space Center	FL	Herndon Solutions Group	Biologist
Douglas Scheidt	Kennedy Space Center	FL	Herndon Solutions Group	Biologist
Maggie Broadwater	Mount Pleasant	SC	NOAA	Program Manager
Monty (David) Montgomery	Palm Bay	FL	Self	Environmental Engineer
Edward Garland	Indialantic	FL	Sebastian Inlet District	Public Information Associate
Richard Paperno	Melbourne	FL	Florida Fish & Wildlife Conservation Commission	Research Administrator I
Gregory Wilson	Ormond Beach	FL	Riverside Conservancy	Board Director and Chief Scientific Officer

Morgaine McKibben	Columbia	MD	NASA GSFC/NASA NPP	Postdoctoral fellow
Christianne Ferraro	Cocoa Beach	FL	Grove Scientific & Engineering Co.	Vice President of Engineering
Dianne Hughes	Stuart	FL	Martin County	Environmental Programs Coordinator
Jamie Kilgo	Fort Collins	CO	NPS	Marine Ecologist
Jeff Brower	DeLand	FL	Volusia County	Chair
Jessy Wayles	New Smyrna Beach	FL	Marine Discovery Center	Conservation Science Coordinator
Kori Blitch	Baton Rouge	LA	LDEQ	Environmental Scientist
Gary Ritter	Okeechobee	FL	City of Okeechobee	City Administrator
Charles Vogt	Vero Beach	FL	FDOH Indian River	Environmental Specialist III
Danny Hunt	KSC	FL	NASA, NEMCON	Data Scientist
Greg Doucette	Charleston	SC	NOAA/National Ocean Service	Research Oceanographer
Ed Sherwood	St. Petersburg	FL	Tampa Bay Estuary Program	Executive Director
Halle Berger	Groton	CT	NOAA	Knauss fellow
James Gray	Indialantic	FL	Sebastian Inlet District	Executive Director
Naresa Cancro	Kennedy Space Center	FL	NEMCON	Senior GIS Analyst
Lisa Krimsky	Fort Pierce	FL	UF	Water Resource Regional Specialized Agent
Derek Cox	West Palm Beach	FL	FWC	Biologist
Stacie Flood	West Palm Beach	FL	SFWMD	Scientist

Betty Staugler	Sarasota	FL	Florida Sea Grant	NOAA HAB Liaison
Vivienne Main	Stuart	FL	Florida Oceanographic Society	Research Associate
Kelsey Mack	Cocoa Beach	FL	City of Cocoa Beach	Environmental Specialist
John Leslie	Vero Beach	FL	John Leslie	Environmental Analyst
Graham Cox	Sebastian	FL	Pelican island Audubon Society	PIAS volunteer
Mark Rains	Tallahassee	FL	DEP	Chief Science Officer
Katherine Hubbard	St. Petersburg	FL	Florida Fish and Wildlife Conservation Commission-Fish and Wildlife Research Institute	Research Scientist
Nancy Campbell	Halethorpe	MD	StormCenter Communications	Contracts Manager
Ellen Prager	St. Petersburg	FL	StormCenter Communications	Chief Scientist
Mary Kate Rogener	Athens	GA	NOAA	Program Analyst
Mary Kate Rogener	Athens	GA	NOAA	Program Analyst
Chris Schumann	Cape Canaveral	FL	HSG	Data Scientist
Don Anderson	Woods Hole	MA	Woods Hole Oceanographic Institution	Senior Scientist
Ashley Malcolm	Vero Beach	FL	IRLNEP	Administrative Coordinator
Michael McCabe	Palm Bay	FL	Melbourne-Tillman Water Control District	District Engineer
Meghan Abbott	St. Petersburg	FL	FWC Fish and Wildlife Research Institute	Associate Research Scientist
Sarah L Burnsed	St. Petersburg	FL	Florida Fish and Wildlife Research Institute	Marine Fisheries Biologist

Daniel Slone	Gainesville	FL	U.S. Geological Survey	Research Ecologist
Barbara Kirkpatrick	Sarasota	FL	GCOOS	Senior Advisor
Holly Abeels	Cocoa	FL	UF/IFAS Extension	Florida Sea Grant Extension Agent
Sarah Barrett	Tallahassee	FL	Florida Fish and Wildlife Conservation Commission	Assistant Section Leader
Svetlana Esenkulova	Nanaimo	BC	Pacific Salmon Foundation	Biologist
Svetlana Esenkulova	Nanaimo	BC	Pacific Salmon Foundation	Biologist
Svetlana Esenkulova	Nanaimo	BC	Pacific Salmon Foundation	Biologist
Svetlana Esenkulova	Nanaimo	BC	Pacific Salmon Foundation	Biologist
Hyun Jung Cho	Daytona Beach	FL	Bethune-Cookman University	Professor of Environmental Science
Ellen Prager	St. Petersburg	FL	StormCenter Communications	Chief Scientist
Elizabeth Nystrom	Troy	NY	New York Water Science Center	Hydrologist
Paige Lester	Vero Beach	FL	Indian River County BoCC	GIS Analyst
Daniel Levine	Fort Collins	CO	NOAA	Disaster Support Specialist
Alexandra Carvalho	Jacksonville	FL	CMar Consulting, LLC	President and Principal
Daniel Young	Edgewater	FL	YBE CONSULTING, INC.	Consultant / Contractor
Vanessa Strohm	Gloucester Point	VA	Virginia Institute of Marine Science	Graduate Student
Dennis Hanisak	Fort Pierce	FL	Florida Atlantic University	Research Professor
Dennis Hanisak	Fort Pierce	FL	Florida Atlantic University	Research Professor
Thomas Farrugia	Anchorage	AK	Alaska Ocean Observing System	Alaska Harmful Algal Bloom Network Coordinator
Benjamin Skinner	Vancouver	BC	Pacific Salmon Foundation	GIS Specialist

Keith Bouma-Gregson	Sacramento	CA	U.S. Geological Survey	Research Biologist
Ashley Malcolm	Vero Beach	FL	IRLNEP	Administrative Coordinator
Morgan Gilligan	Stuart	FL	Florida Oceanographic Society	Research Associate
Chip Deutsch	Gainesville	FL	Florida Fish & Wildlife Conservation Commission	Associate Research Scientist
Emily Dark	Stuart	FL	Martin County	Coastal Management Coordinator
Kristen Kneifl	Titusville	FL	Canaveral National Seashore	Resource Manager
Eric Charest	Vero Beach	FL	Indian River County	Natural Resources Manager
Kelly Fannon	Tallahassee	FL	Florida DEP	Program Consultant
Martina Rutti	St. Petersburg	FL	Fish & Wildlife Research Institute	Operations Management Consultant
Yun Sun	Paris	France	Unesco	JPO
Emily Richardson	Sacramento	CA	USGS	Physical Scientist
Laura Korman	Amelia Island	FL	SECOORA	Program Coordinator
Elizabeth Stratton	Boca Raton	FL	ERT for NOAA	Disaster Response Coordinator
Marissa Vigar	Atlanta	GA	CDC	Health Scientist
Stacie Flood	Jupiter	FL	SFWMD	Scientist
Lorae Simpson	Stuart	FL	Florida Oceanographic Society	Director of Research
Jessica Frost	West Palm Beach	FL	SFWMD	Manager
Ellen Prager	St. Petersburg	FL	StormCenter Communications	Chief Scientist
Amy Hamilton	Annapolis	MD	Maryland Department of Natural Resources	Natural Resource Biologist

Amy Hamilton	Annapolis	MD	Maryland Department of Natural Resources	Natural Resource Biologist
Svetlana Esenkulova	Nanaimo	BC	Pacific Salmon Foundation	Biologist
Dan Wiltsie	Raleigh	NC	North Carolina Division of Water Resources	Algal Bloom Response Coordinator
Maggie Broadwater	Mount Pleasant	SC	NOAA	Program Manager
Andrea Krzystan	St. Petersburg	FL	Florida Fish and Wildlife Research Institute	Assistant Research Scientist
Kirstin Wakefield	Milton	DE	MARACOOS	Stakeholder Outreach Liaison
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Ellen Prager	St. Petersburg	FL	StormCenter Communications	Chief Scientist
Cathy Foerster	Gainesville	FL	ATM, a Geosyntec Company	Senior Planner
Jeff Flashinski	Providence	RI	DEM	Environmental Engineer
Tyler Harman	Beaufort	NC	NOAA NCCOS	Biological Research Assistant
Dennis Hanisak	Fort Pierce	FL	Florida Atlantic University	Research Professor
Amanda Marshall	Baton Rouge	LA	Louisiana Department of Environmental Quality	Environmental Scientist 3
Chip Deutsch	Gainesville	FL	Florida Fish & Wildlife Conservation Commission	Associate Research Scientist
Virginia Roberts	Atlanta	GA	CDC	Epidemiologist
Justin Grubich	Sewalls Point	FL	Pew Charitable Trusts	Officer, Conserving Marine Life in the U.S.
Catherine Wazniak	Annapolis	MD	MD DNR	Program Manager
Emily Bores	Columbia	SC	SC DHEC	Environmental Scientist

CHRISTINE EASTWICK	Vero Beach	FL	USFWS	Coastal Program Biologist
Jessica Frost	West Palm Beach	FL	SFWMD	Manager
Heidi Stiller	St. Petersburg	FL	NOAA Office for Coastal Management	South Regional Director
Hannah Hart	Titusville	FL	FWC	Regional Biologist
Ashley Malcolm	Vero Beach	FL	IRLNEP	Administrative Coordinator
Mitchell Roffer	Melbourne Beach	FL	Self	Social Director
Vincent Encomio	Stuart	FL	FL Sea Grant UF IFAS	Extension Agent
Rhonda Watkins	Naples	FL	Collier County	Principal Environmental Specialist
Jen Maucher	Charleston	SC	NOAA	Marine Biologist
Jessica Garland	Stuart	FL	Martin County BOCC	Coastal Project Manager
Jessica Garland	Stuart	FL	Martin County BOCC	Coastal Project Manager
Jeff Glenn	Orlando	FL	RS&H, Inc.	Water Resources Leader
Susan Dye	Athens	GA	USEPA	Aquatic Ecologist
Emily Powell	Tallahassee	FL	FSU	Climate specialist

List of Stakeholders that attended the four GeoCollaborate: Informing Harmful Algal Bloom Emergency Response

First Name	Last Name	State/Province	Organization	Job Title
Ashley	Malcolm	FL	IRL Council	Administrative Coordinator
Yuliya	Danyuk	FL	Florida Department of Environmental Protection	Environmental Consultant
Jeffrey	Collins	FL	NASA	Environmental Protection Specialist
Jeffrey	Collins	FL	NASA	Environmental Protection Specialist
Jeffrey	Collins	FL	NASA	Environmental Protection Specialist
Jeffrey	Collins	FL	NASA	Environmental Protection Specialist
Jeffrey	Collins	FL	NASA	Environmental Protection Specialist
Jeffrey	Collins	FL	NASA	Environmental Protection Specialist
Vincent	Encomio	FL	Florida Sea Grant	Extension Agent
Quay	Dortch	MD	CSS, Inc/NOAA	Senior HAB Scientist
Greg	Doucette	SC	NOAA/National Ocean Service	Research Oceanographer
Ellen	Prager	FL	StormCenter Communications	Chief Scientist
Melinda	Simmons	FL	Jacksonville University	Biology & Marine Science Professor
Kellie	Ralston	FL	Bonefish & Tarpon Trust	VP Conservation and Public Policy
Dennis	Hanisak	FL	FAU Harbor Branch	Research Professor
Kathy	Hill	FL	IRLNEP	communication
Jill	Fleiger	FL	FDACS	Environmental Administrator
Janis	Morrow	FL	Florida Department of Environmental Protection	Environmental Administrator
Andrew	Morris	FL	FDEP	Environmental Consultant

Anne	Birch	FL	The Nature Conservancy	FL Oceans and Coasts Strategy Director
Brian	Chalfant	PA	Pennsylvania Department of Environmental Protection	Deputy Policy Director
Christianne	Ferraro	FL	Grove Scientific & Engineering Company	Vice President of Engineering
Edna	Fernandez-Figueroa	AL	Auburn University	Postdoc
Rajan	Anbiah	Other	Environment Agency	Scientist-Marine Water Quality
Emily	Dark	FL	Martin County	Coastal Management Coordinator
804120		Other	Environment Agency- Abu Dhabi	Scientist-Marine Water Quality
Heather	Krempa	MO	US Geological Survey	Hydrologist
Lisa	Van Houdt	FL	FDEP	EC
Kelley	Barfoot	AL	MobileBayNationalEstuaryProgram	ProgramAnalysis/GISSpecialist
Danielle	Nathanson	WV	West Virginia Department of Environmental Protection	Environmental Resources Specialist III
Ashley	Malcolm	FL	IRL Council	Administrative Coordinator
Baylin	Bennett	OR	University of Alabama at Birmingham	Research Ecotoxicologist
Baylin	Bennett			
Matthew	Mitts	FL	City of Vero Beach Public Works	Public Works Director
William	Klein	FL	Self	Retired Nuclear Engineer
Danielle	Stanek	FL	Florida Department of Health	State Public Health Veterinarian
Melissa	Partyka	AL	Auburn University	Asst. Extension Professor
Laura	La Beur	FL	St. Johns River Water Management District	Education and Outreach Coordinator
Deinna	Dalton	FL	FDEP	Senior Program Analyst
Deinna	Dalton			
Laura	Marklley	FL	FWC-FWRI	Research Associate
David	Koerner	FL	Florida Department of Health	Environmental Manager

Ann	St Amand	MI	PhycoTech, Inc.	President
Mike	McCann	CA	MBARI	Software Engineer
Ellen	Prager	FL	StormCenter Communications	Chief Scientist
Derek	Cox	FL	FWC	Biologist
Rhonda	Watkins	FL	Collier County Government	Principal Environmental Specialist
Jeff	Eble	FL	Florida Tech	Research Assistant Professor
Denise	McCafferty	FL	Lloyd's Register	Senior Environmental Specialist
CV	Vogt	FL	FDOH IR	ESIII
Kathleen	Hill	FL	IRLNEP	Deputy Director
Marlys	Breckle	FL	Speak Up Titusville	Secretary
Eric	Charest	FL	Indian River County	Natural Resources Manager
Rashmi	Krishnapuram	LA	LDEQ	ESIII
Emily	Marquis	CT	CT Department of Agriculture/Bureau of Aquaculture	Fisheries Biologist I
Jennifer	Winters	FL	County of Volusia	Activity Manager
Chad	Murch	FL	Volusia County Environmental Management	Manatee Protection
John	Grosch	LA	LDEQ	Environmental Scientist
Kristina	Broussard	MS	Mississippi Department of Marine Resources	Biological Program Coordinator
Noelani	Boise	WA	Pacific Northwest National Lab	Earth Scientist
Tiffany	Weidner	MS	Mississippi Department of Marine Resources	Biological Program Coordinator
Travis	Thompson	FL	All Florida	CEO
Savannah	Judge	ME	Yokogawa Fluid Imaging Technologies, Inc.	Aquatics Sales
Heather	Krempa	MO	US Geological Survey	hydrologist
Martha	Guyas	FL	American Sportfishing Association	Southeast Policy Director
Christine	Bamberger	FL	I R L Advisory Committee	Resident
Ashley	Malcolm	FL	IRL Council	Administrative Coordinator
Melanie	Parker	FL	South Florida Water Management District	Science Supervisor
Gina	LaLiberte	WI	WDNR	water resource management specialist

Maggie	Broadwater	SC	NOAA	Program Manager
Tracie	Barry	WA	Washington State Department of	Marine Biotoxin Specialist
Stacie	Flood	FL	SFWMD	Scientist
Stacie	Flood			
Dianne	Hughes	FL	Martin County	Environmental Programs Coordinator
Lissa	Strohecker	FL	St Johns River Water Management District	Communications Coordinator
Jeff	Flashinski	RI	Rhode Island DEM	Env Engineer
Jeff	Flashinski			
Mailin	Sotolongo Lopez	FL	FDEP	Environmental Consultant
Astrid	Schnetzer	NC	North Carolina State University	Associate Professor
Ellen	Prager	FL	StormCenter Communications	Chief Scientist
Cheryl	Swanson	FL	Dept. of Environmental Protection	Program Administrator
Martha	Guyas	FL	American Sportfishing Association	Southeast Fisheries Policy Director
Stephanie	Abbe	FL	Fish and Wildlife Institute	Research Associate
Kathleen	Hill	FL	Indian River Lagoon nep	communications
Kevin	Johnson	FL	Florida Tech	Professor
CHRISTINE	EASTWICK	FL	USFWS	Coastal Program Biologist
Kori	Blitch	LA	LDEQ	Environmental Scientist
Holly	Abeels	FL	University of Florida IFAS Extension	Florida Sea Grant Extension Agent
Danielle	Nathanson	WV	West Virginia Department of Environmental Protection	Environmental Resources Specialist III
Brian	Chalfant	PA	Pennsylvania Department of Environmental Protection	Deputy Policy Director
Dan	Levy	FL	AECOM	Vice President
Lisa	Krimsky	FL	UF/IFAS	Water Resources Regional Specialized Agent

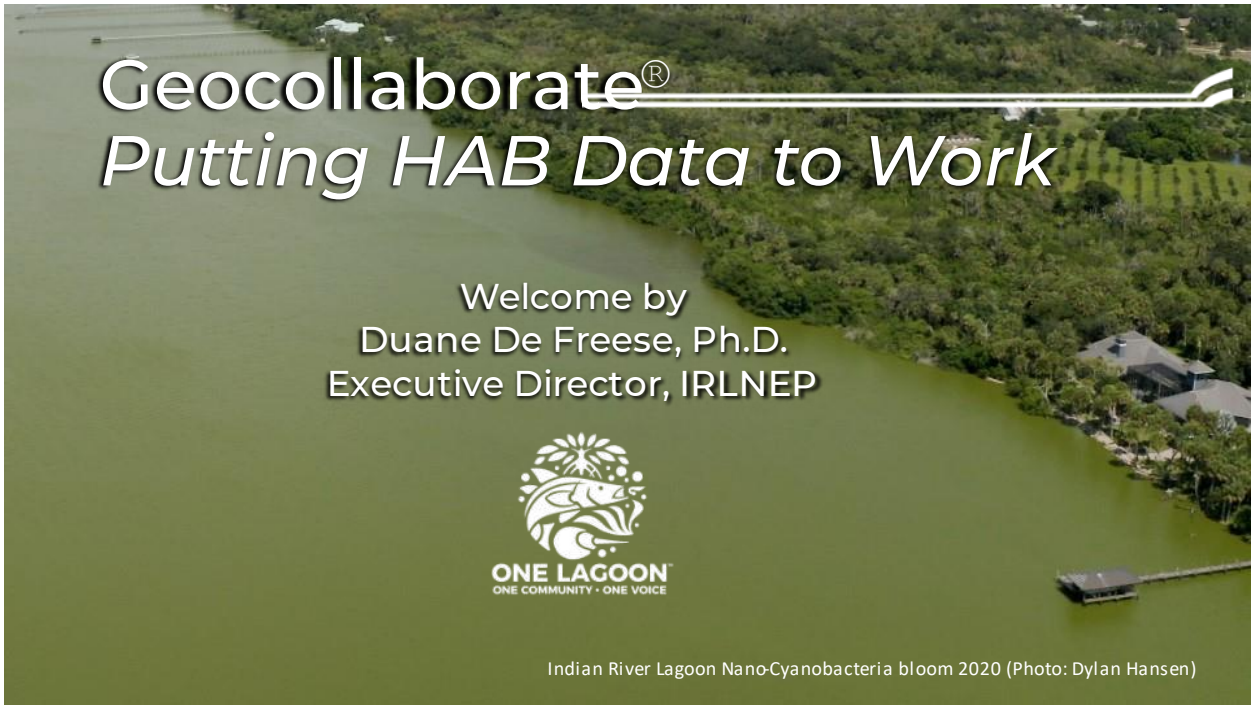
Emily	Bores	SC	SC DHEC	Environmental Scientist II
Ashley	Evitt	FL	SJRWMD	Media Outreach Manager
Gretchen	Smith	FL	St Johns River Water Management District	Communications Manager
Tammy	Cleveland	FL	US Army Corps of Engineers	Supervisory Biologist
Naresa	Cancro	FL	HSG	SR GIS Analyst
John	Ferry	SC	University of South Carolina	Professor
EDNA	FERNANDEZ	AL	Auburn University	Postdoc
BILL	HEDDENDORF	NJ	NJ DEP Bureau of Marine Water Monitoring	Environmental Specialist 4
Tiffany	Weidner	MS	Mississippi Department of Marine Resources	Biological Program Coordinator
Ellen	Prager	FL	StormCenter Communications	Chief Scientist
Marcy	Frick	FL	Tetra Tech, Inc.	Senior Water Resources Engineer
Amy	Hamilton	MD	Maryland Department of Natural Resources	Natural Resource Biologist
Amy	Hamilton		Maryland Department of Natural Resources	Natural Resource Biologist
Amy	Hamilton		Maryland Department of Natural Resources	Natural Resource Biologist
Amy	Hamilton		Maryland Department of Natural Resources	Natural Resource Biologist
Theresa	Cody	FL	Fl Fish and Wildlife	Associate Research Scientist
Theresa	Cody		Fl Fish and Wildlife	Associate Research Scientist
Theresa	Cody		Fl Fish and Wildlife	Associate Research Scientist
Danielle	Nathanson	WV	West Virginia Department of Environmental Protection	Environmental Resources Specialist III
Douglas	Scheidt	FL	Herndon Solutions Group	Ecologist
Meghan	Abbott	FL	FWC-FWRI	Associate Research Scientist
Meghan	Abbott		FWC-FWRI	Associate Research Scientist
M	Roffer	FL	retired but will take consultancy	President
M	Roffer			
M	Roffer			
Tammy	Karst-Riddoch	ON	AECOM	Senior Limnologist
Celia	Villac	FL	Fish and Wildlife Research Institute	Research Scientist

Monica	Samit	FL	FDOH	HAB Environmental Consultant
René	Baumstark	FL	FWC Fish & Wildlife Research Institute	Section Lead
Laurilee	Thompson	FL	Dixie Crossroads Seafood Restaurant	Co-owner
Melissa	McIntyre-Meisenburg	FL	Indian River County	Lagoon Plan Environmental Specialist
Terry	Williamson	FL	Brevard County Natural Resources Management Department	Environmental Section Supervisor
Dan	Wiltsie	NC	North Carolina Department of Environmental Quality	Algal bloom response coordinator
Nick	Daigle	FL	Florida Department of Environmental Protection	Environmental Consultant
Laura	Korman	SC	SECOORA	Program Coordinator
Betty	Staugler	FL	Florida Sea Grant - UF	NOAA HAB Liaison
Virginia	Barker	FL	Brevard County Natural Resources Management Department	Director
Ling	Ren	VA	George Mason University	Research Assistant Professor
Kristen	Davis	FL	FAU Harbor Branch	IRLON Manager
Haley	McQueen	FL	FAU Harbor Branch	PhD Candidate
Alicia	Hogue	FL	Florida Department of Environmental Protection	Program Administrator
Gillian	Gilbert-Wason	GA	GA EPD	Water Quality Standards Coordinator
Monty	Montgomery	FL	Virtucon Industries	Dr. Evil's Assistant
JIm	Duncker	IL	USGS	Hydrologist
Dennis	Hanisak	FL	FAU Harbor Branch	Research Professor
Ms. Mel	Bromberg	FL	League of Women Voters, St. Lucie County	Retired -but consult on watershed,climate and water finance and diplomacy issues
Chip	Deutsch	FL	Florida Fish & Wildlife Conservation Commission	Associate Research Scientist
Kyle	Luba	FL	Florida Fish and Wildlife	Biological Scientist II Florida Fish and Wildlife Fish Kill Hotline Coordinator

Miranda	Barrington	FL	Florida Gulf Coast University	Research Lab Coordinator
Thomas	Farrugia	AK	Alaska Ocean Observing System	Program Manager
Amanda	Marshall	LA	LDEQ	Environmental Scientist
Ashley	Malcolm	FL	IRL Council	Administrative Coordinator
Krista	Thomas	NS	National Research Council - Biotoxin Metrology	Research Council Officer
Sharmila	Thenuwara	OH	University of Toledo	Graduate student
Douglas	gibson	FL	City of Oak Hill	Mayor
Diana	Turner	FL	fdep	EA
Stu	Glass	FL	Town of Indialantic	Deputy Mayor
Andrew	Reich	FL	H2oConsulting	Public Health Scientist
Rick	Clark	FL	Florida Dept of Health	Environmental consultant
Andi	Fitzgibbon	PA	US Army Corps of Engineers	Aquatic Biologist
Nicole	Bonine	GA	US Army Corps of Engineers	Environmental Compliance Program Manager
Greg	Doucette	SC	NOAA/National Ocean Service	Research Oceanographer
Kelsey	Mack	FL	City of Cocoa Beach	Environmental Specialist
Jennifer	Shafer	FL	SHAFER CONSULTING LLC	scientist
Debbie	Wright	FL	Volusia County, Environmental Management	Manatee Protection Program Manager
Mark	Rains	FL	DEP	Chief Science Officer
EDNA	FERNANDEZ	AL	Auburn University	Postdoc
Mike	McCann	CA	MBARI	Software Engineer
Kirstin	Wakefield	DE	MARACOOS	Stakeholder Outreach Liaison
Kristen	McGovern	TX	Galveston bay Estuary Program	Monitoring and Research Coordinator
Charles	Vogt	FL	FDOH IR	Environmental Specialist III

Presentation for GeoCollaborate: Putting HAB Data to Work

YouTube Link: https://www.youtube.com/watch?v=Qy57UByBv3I



Geocollaborate
Putting HAB Data to Work

Acknowledgement:

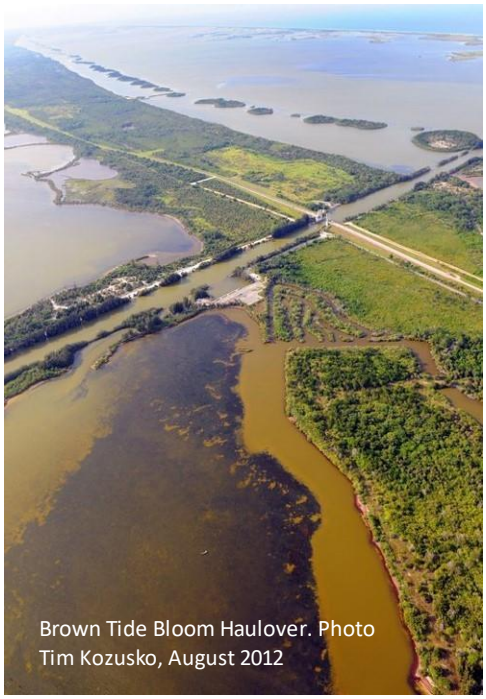
Harmful Algal Bloom Innovative Technology Project Grant funded through the Florida Department of Environmental Protection's Office of Water Policy and Ecosystems Restoration for FY 2020-2021. Amount of the award was $963,470.

Role of IRLNEP?

- IRL Council created in 2015 to host a reorganized IRLNEP in response to dramatic changes in IRL.
- IRLNEP expanded program investment in HAB monitoring (recurring annual contracts with Malcolm McFarland (FAU-HBOI) and Ed Phlips (UF).
- IRLNEP reconvened the SJRWMD 2011 "Superbloom" Consortium in 2019 as the IRLNEP Algal Bloom Consortium.
- IRLNEP is developing a One Lagoon Monitoring Plan with contract support (Dennis Hanisak FAU-HBOI).
- Recurring seasonal algal blooms, fish kills and other wildlife mortality events highlighted the need and opportunity to enhance communication, collaboration and coordination.

Geocollaborate
Putting HAB Data to Work

Project Focus:
Demonstrate how the Geocollaborate technology platform could be used to improve HAB data sharing, communications, coordination, and collaboration among data collectors, data users, emergency responders and resource managers.



Brown Tide Bloom Haulover. Photo Tim Kozusko, August 2012

GeoCollaborate: Putting HAB Data to Work – A Webinar Series

Workshop Sessions

1. **Communicating the Bloom – IRL HAB Hindcast**
2. IRL HAB Emergency Scenario Planning and response
3. Communicating the Blooms – Developing a communication framework for Florida's HAB Information Center

The Project Team

ONE LAGOON
ONE COMMUNITY · ONE VOICE
INDIAN RIVER LAGOON NATIONAL ESTUARY PROGRAM

StormCenter COMMUNICATIONS, INC.™
Redefining Collaboration through Data Sharing

St. Johns River Water Management District

HARBOR BRANCH
FLORIDA ATLANTIC UNIVERSITY

- Charles "Chuck" Jacoby, Ph.D. (SJRWMD)
- Dennis Hanisak, Ph.D. (FAU - HBOI)
- Dave Jones and Ellen Prager, Ph.D. (StormCenter Communications)
- Kirstin "KJ" Ayres, Kathy Hill, Dan Kolodny, Ashely Malcolm, and Duane De Freese (IRLNEP)

Agenda Today

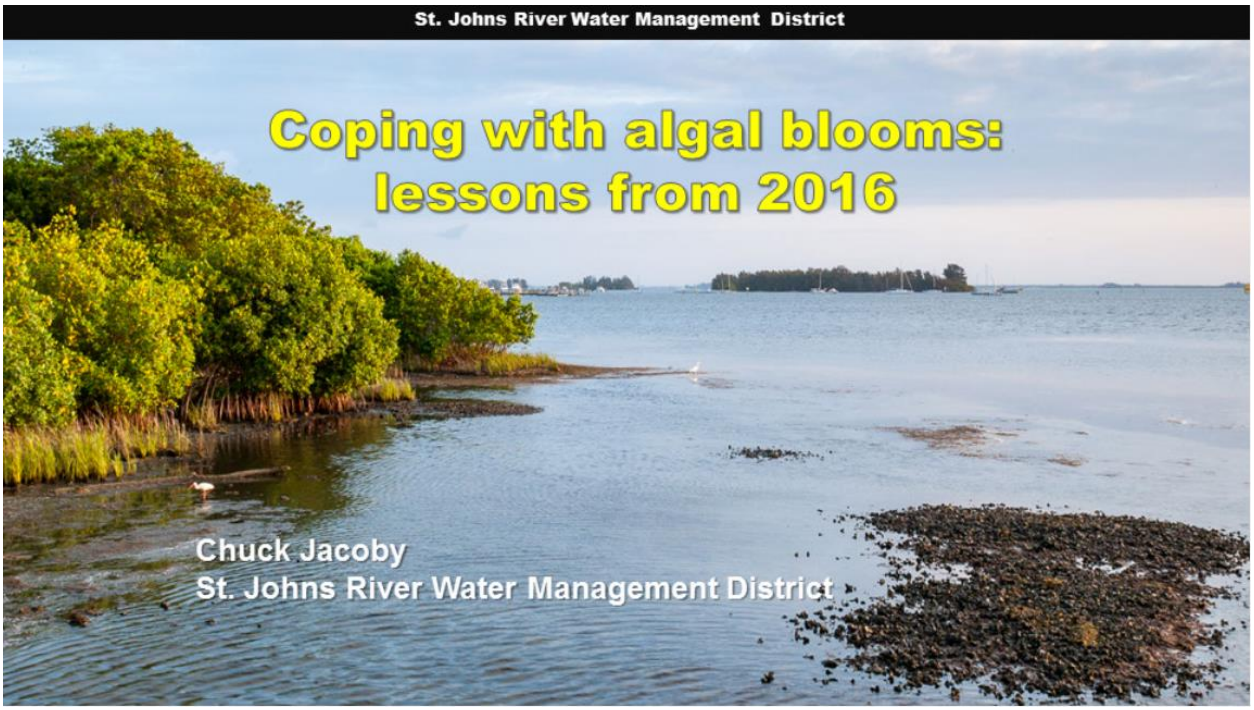
Presentations

- Chuck Jacoby, “Why?”
- “KJ” Ayres, “What?”
- Dave Jones, “What If?

Audience Questions and Answers

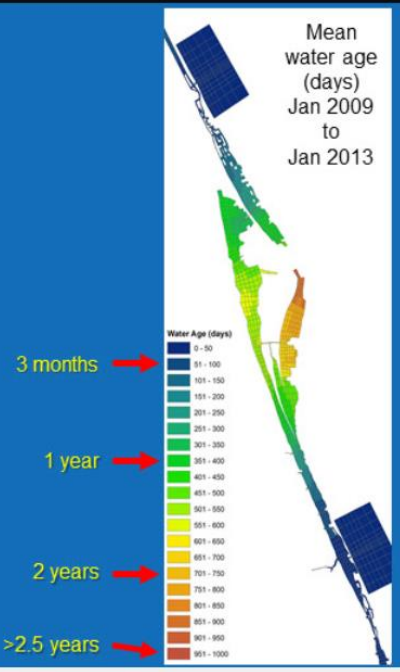
Wrap Up

- What Have We Learned? Next Steps?



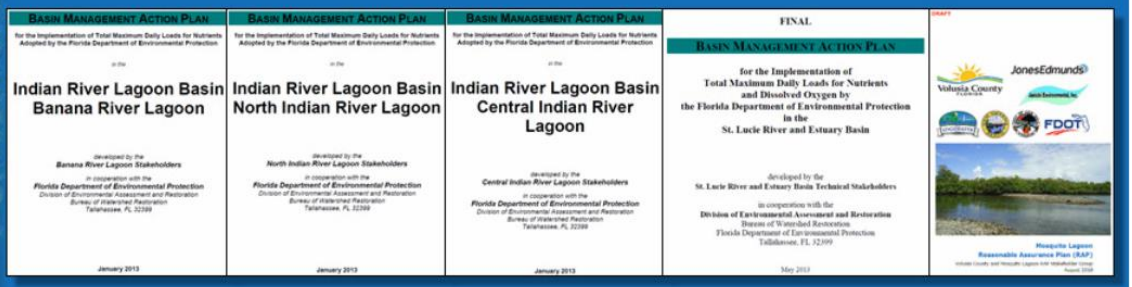
St. Johns River Water Management District

- **Complex**
  - 3 receiving waterbodies
  - long (156 miles)
  - shallow (~3' on average)
  - not a river (wind and tide driven)
  - segmented (flushing weeks to years)
  - sensitive
  - diverse and special

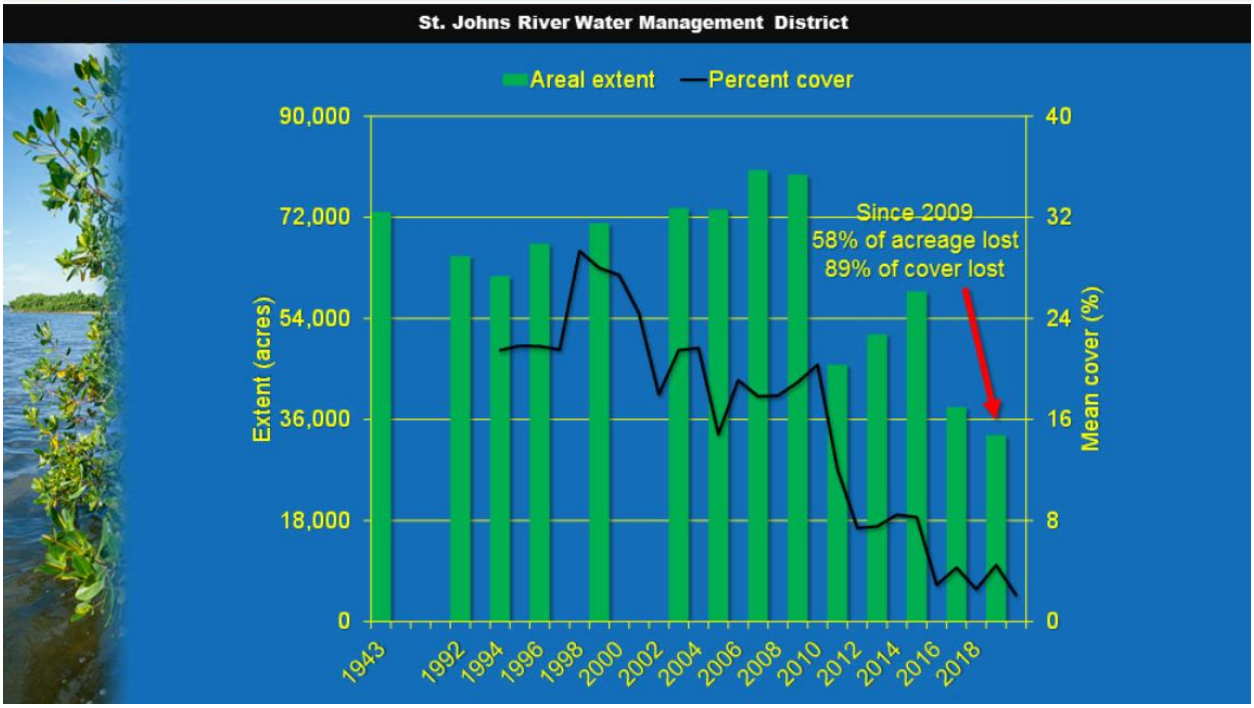


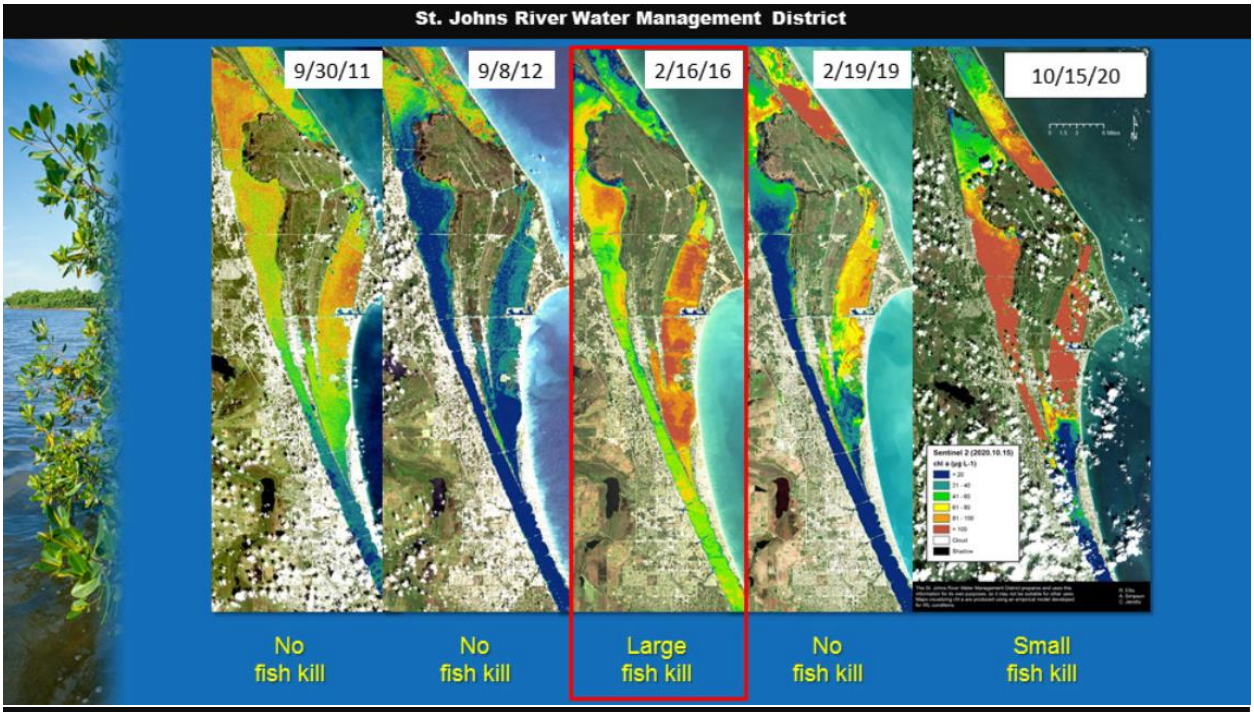
St. Johns River Water Management District

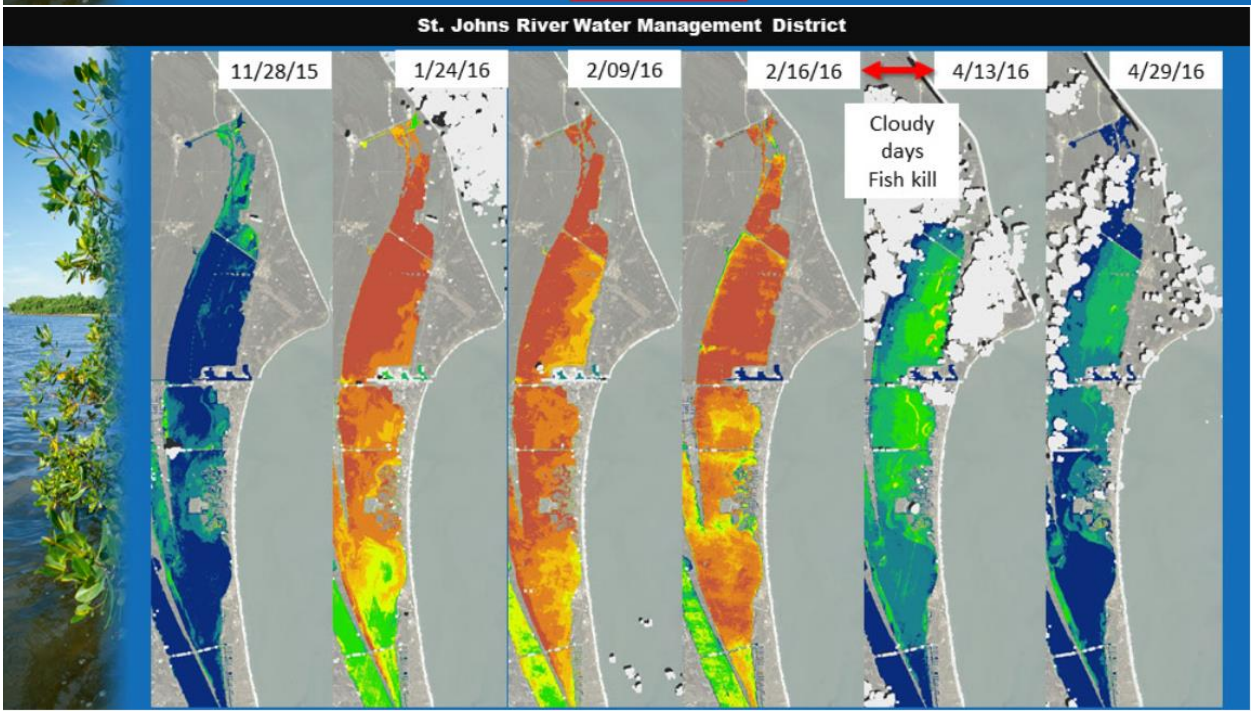
- **Excess nutrients** (N and P)
- **Basin Management Action Plan** (BMAP) **or Reasonable Assurance Plan** (RAP)
  - adaptive approach to uncertainty
  - seagrass a key indicator

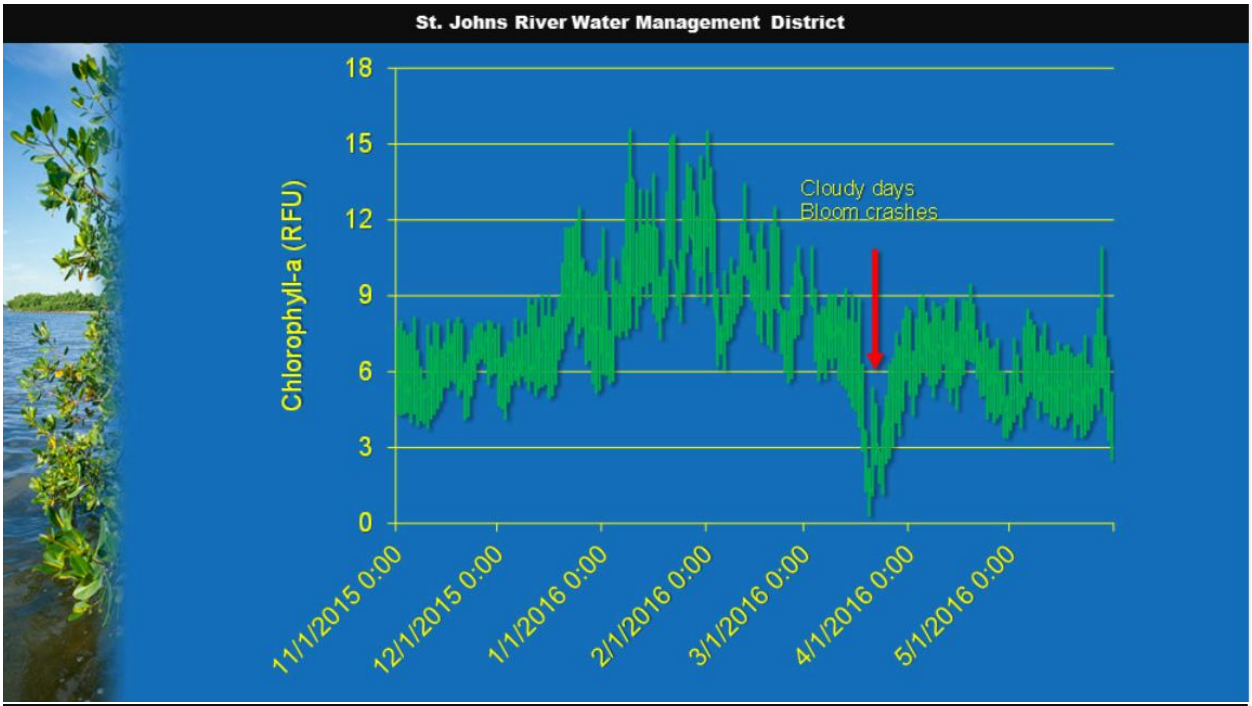


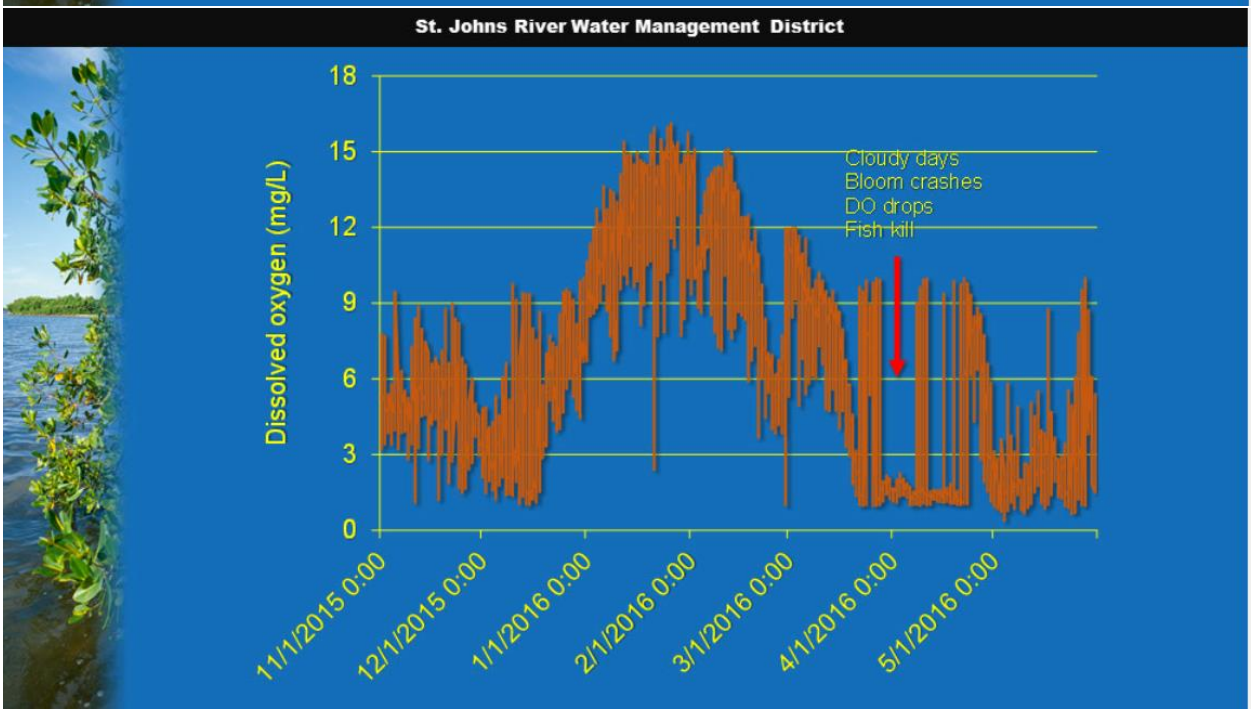
St. Johns River Water Management District

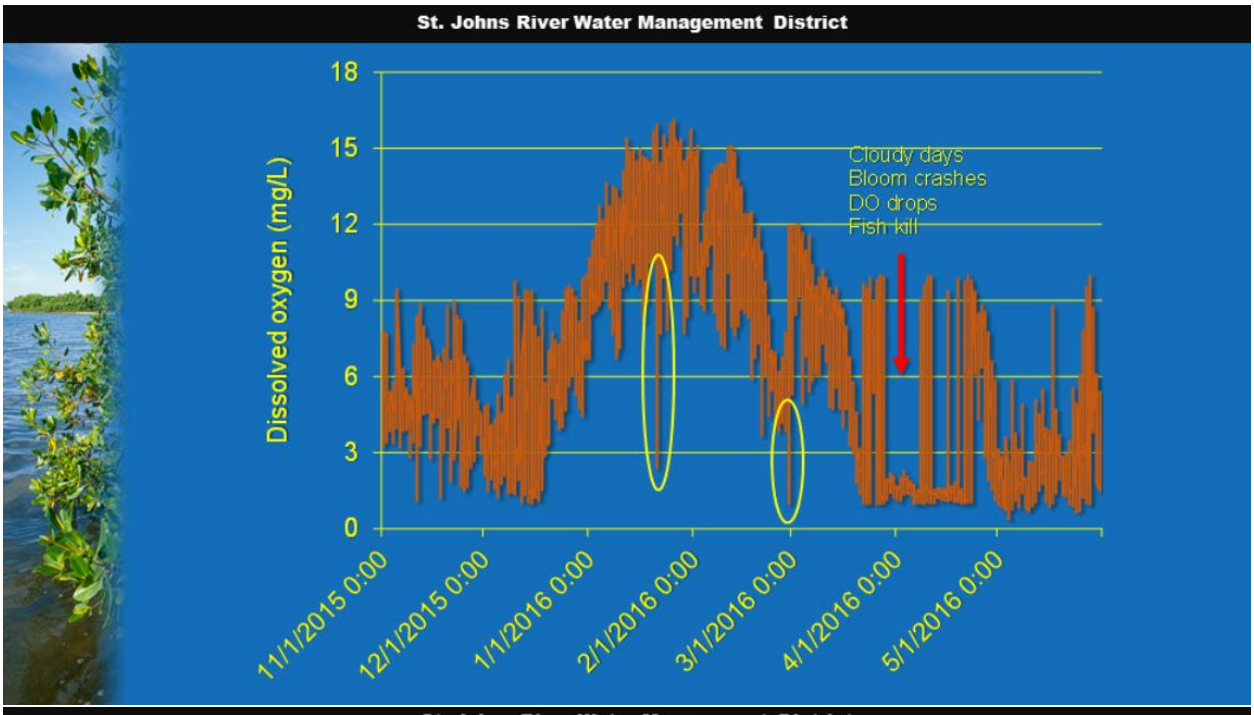

St. Johns River Water Management District
Areal extent
Percent cover
90,000
72,000
54,000
36,000
18,000
0
Extent (acres)
40
32
24
16
8
0
Mean cover (%)
Since 2009
58% of acreage lost
89% of cover lost
1943
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018

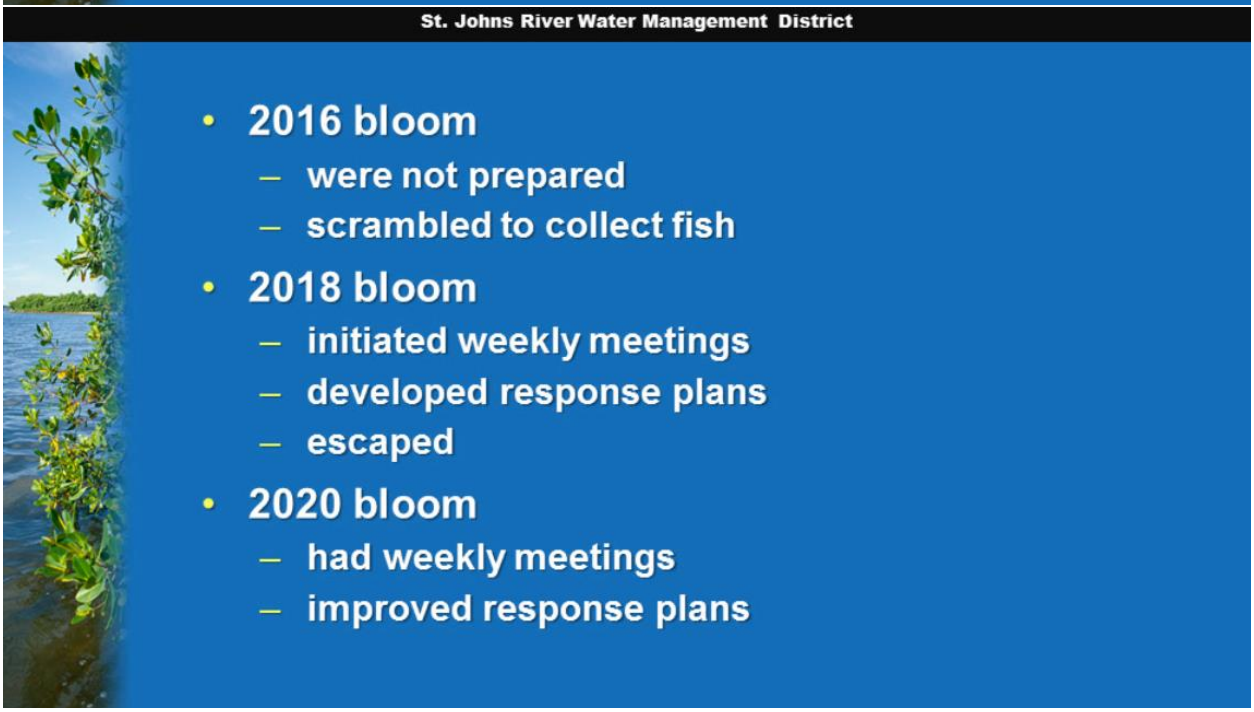

St. Johns River Water Management District
9/30/11
9/8/12
2/16/16
2/19/19
10/15/20
No fish kill
No fish kill
Large fish kill
No fish kill
Small fish kill

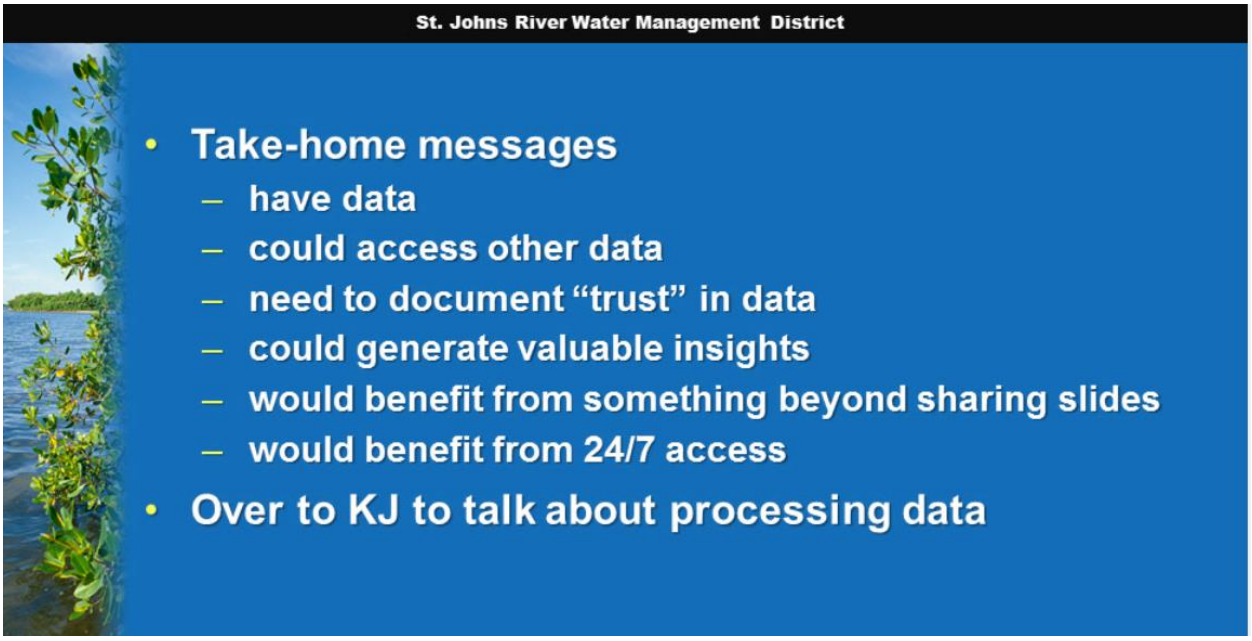

St. Johns River Water Management District
11/28/15
1/24/16
2/09/16
2/16/16
4/13/16
4/29/16
Cloudy days Fish kill


St. Johns River Water Management District
Chlorophyll-a (RFU)
18
15
12
9
6
3
0
Cloudy days
Bloom crashes
11/1/2015 0:00
12/1/2015 0:00
1/1/2016 0:00
2/1/2016 0:00
3/1/2016 0:00
4/1/2016 0:00
5/1/2016 0:00


St. Johns River Water Management District
Dissolved oxygen (mg/L)
18
15
12
9
6
3
0
Cloudy days
Bloom crashes
DO drops
Fish kill
11/1/2015 0:00
12/1/2015 0:00
1/1/2016 0:00
2/1/2016 0:00
3/1/2016 0:00
4/1/2016 0:00
5/1/2016 0:00


St. Johns River Water Management District
Dissolved oxygen (mg/L)
18
15
12
9
6
3
0
Cloudy days
Bloom crashes
DO drops
Fish kill
11/1/2015 0:00
12/1/2015 0:00
1/1/2016 0:00
2/1/2016 0:00
3/1/2016 0:00
4/1/2016 0:00
5/1/2016 0:00

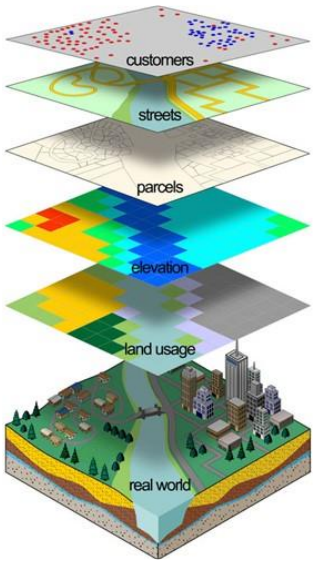

St. Johns River Water Management District
• 2016 bloom
– were not prepared
– scrambled to collect fish
• 2018 bloom
– initiated weekly meetings
– developed response plans
– escaped
• 2020 bloom
– had weekly meetings
– improved response plans


St. Johns River Water Management District
• Take-home messages
– have data
– could access other data
– need to document "trust" in data
– could generate valuable insights
– would benefit from something beyond sharing slides
– would benefit from 24/7 access
• Over to KJ to talk about processing data

Canaveral National Seashore
Titusville
The Importance of High Confidence Data in Geospatial Analysis for Environmental Management in the Indian River Lagoon

Background

- GIS Coordinator for IRLNEP
- Explaining a traditional GIS approach
- Goal: Create a virtual HAB information Center for the IRL and find, quality control, andintegrate relevant datasets into GeoCollaborate
- My job has entailed
  - Finding and reaching to data collectors
  - Determining QA processes and applying QC to data
  - Publishing and displaying datasets in geospatial formats
  - Creating a QAQC manual for future dataset integration



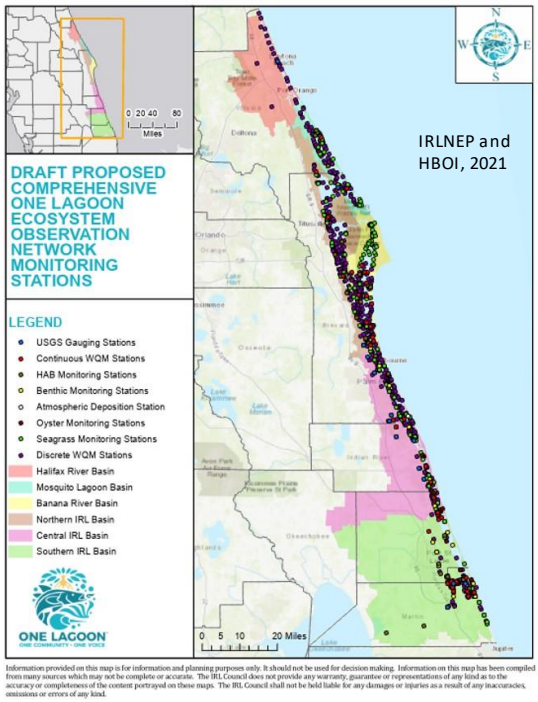
ESRI, 2021

Terminology - QA/QC

- QA/QC stands for Quality Assurance and Quality Control
- USGS: QA is prior and during when samples are collected (defect prevention), and QC methodology are applied afterwards (defect detection)
- Lab or field collections need to be “trustable”

Data sources in the IRL

- There is a lot of data available
- One Lagoon Monitoring Network
- ~70 monitoring programs collecting data relating to HABs in the IRL
  - Benthic stations
  - Atmospheric deposition stations
  - Seagrass monitoring stations
  - Continuous and discrete WQ
  - HAB monitoring stations
  - more



What data to look at first

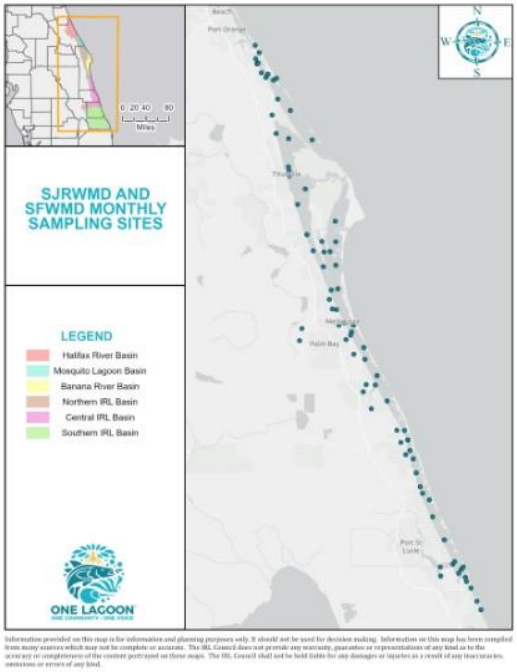
- Determining when algal blooms will occur is very complicated.
- Light, precipitation, run-off, nutrient availability, residence time, among other variables affect bloom conditions.
  - conditions vary by species
- There are ample datasets available, but to use the data operationally it needs to go through a "trustability" process
- As a team, we thought the first cut should look at WQ parameters from the SJRWMD and SFWMD that already applied QAQC to their data, long term monitoring at discrete stations

Water Quality Parameters

1. Chlorophyll A (CHLA) - proxy for algal blooms
2. Dissolved Oxygen (DO) - leads to fish kills
3. Temperature - high temps drive lower DO value
4. Salinity – run-off brings more nutrients
5. PH
6. *Nutrients – driver for algal blooms
7. *Turbidity – resuspension of nutrients

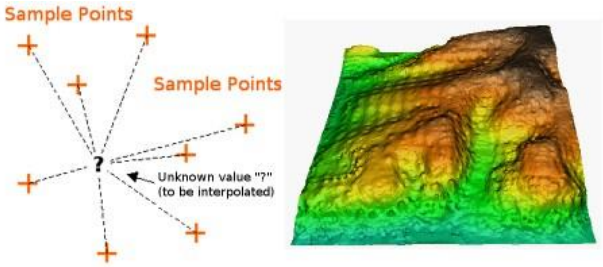
*These are going to be looked at in the future

- Impossible to sample everywhere
- Monetary, Spatial and Temporal Limitations
- Look to the right map these are the sampling stations for SJRWMD and SFWMD
- Sampling points can have gaps
  - Look at Northern BRL and Southern ML
- Gaps make it hard to see hot spots or AOI
- The team decided on running interpolations



What is interpolation?

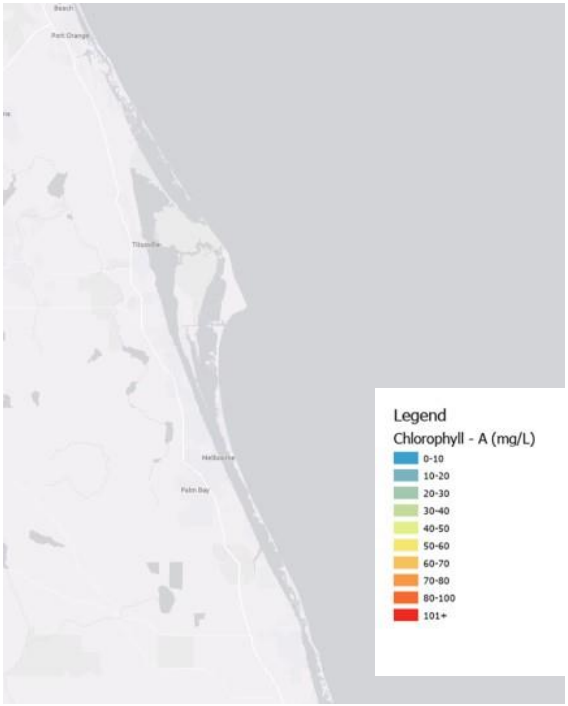
- Interpolation is a procedure used to predict the values of cells at locations that lack sampled points. Take point data and look at spatial patterns over time.



(DEM) Digital Elevation Map example

Looking at the Data

- There are many interpolation models available.
  - 40 models ran
- Created a script that interpolated each variable per month between Jan 2007 - Jan 2021
- One focus for this project is looking at the HAB and fish kill of 2016



Timeline of QC data

- Only included 2 dataset
- 2-3 months to QC the WQ parameters
- Moving forward:
  - We would like to integrate more data into the project
  - Will require more time and more QC efforts
- Algal blooms are complicated; there are many variables
- Imagine how powerful it would be to include all datasets from more providers

Challenges/Lessons Learned

- Organizations are hesitant and take time to release data
- Different instrumentation and calibrations
- Sampling frequency
- Horizontal and vertical spatial limitations
- Equipment Maintenance
- Consistent QA data guidelines
- Detection Limits

Moving Forward

- Real time data from SJRWMD and HBOI
- FWC Fish Kill boundary
- Profile nutrient data from FIT
- Reaching out to you and your organizations to integrate data pertaining to HABs

Take-aways

- There are many organizations collecting data however, to use it operationally it needs to go through a QAQC
- Takes a lot of time and work to QC datasets
- Identified limitations and challenges of combining datasets

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GeoCollaborate

New capability that enables:

- **Active collaboration** and **unification** of **trusted data**
- **Easy-to-use interface**
- Works **across platforms** and on **any device**

It **does not replace** existing portals or websites. It makes them more effective and provides faster targeted data access.

Development of GeoCollaborate Technology

SBIR/STTR
SMALL BUSINESS INNOVATION RESEARCH
SMALL BUSINESS TECHNOLOGY TRANSFER

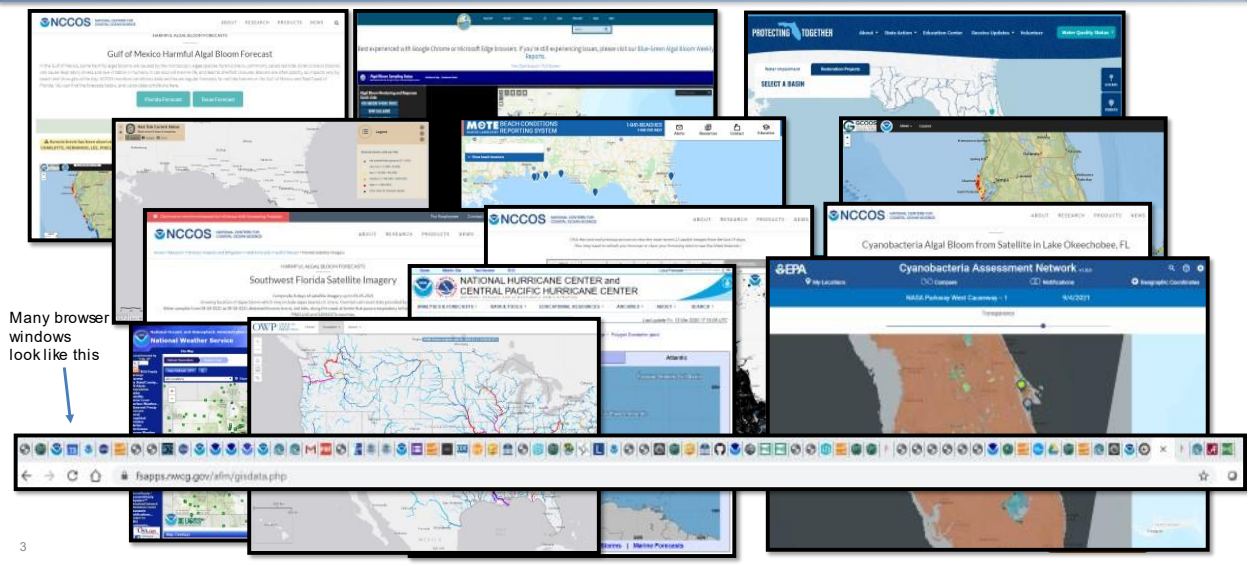
Millions Invested Through Federal Small Business Innovative Research Program (SBIR)

- **(2011) Phase 1: NASA Grand Challenge Sharing Data**
- **(2013) Phase II: Develop Technology**
- **(2015) Phase IIe: Extend to all mobile devices**
- **(2015) Phase III: NOAA Contract**

Phase III status:

Sole source contracting with any federal agency, no ceiling, no time limit
Current contracts include NOAA (4), DHS CISA, Census
All Hazards Consortium

Current Way Many Briefings Are Conducted



3

GeoCollaborate: Making the Complex…Simple

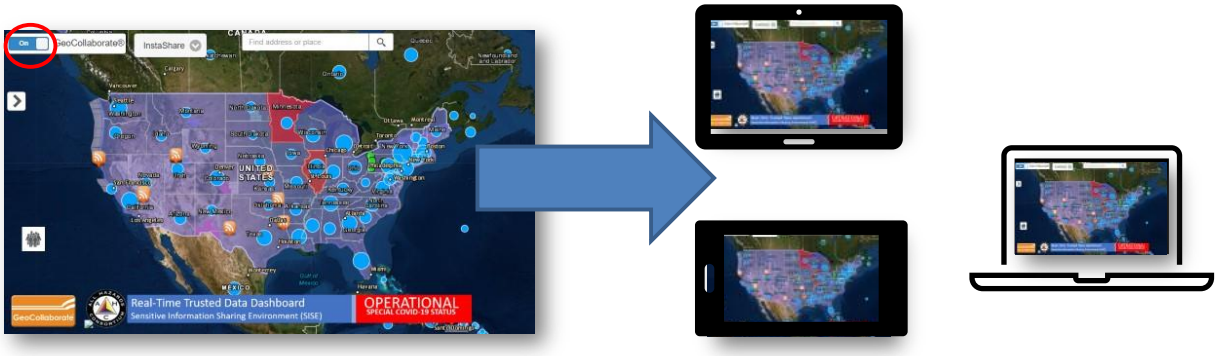
Simple Display controlled by ON/OFF switch

So many websites offering pieces of information

Deliver Trusted Data from disparate sources, in real-time, onto any map

4

GeoCollaborate: Sharing Across Platforms



Data shared across any device

5

Deliver Trusted Data from disparate sources, in real-time, onto any map

GeoCollaborate

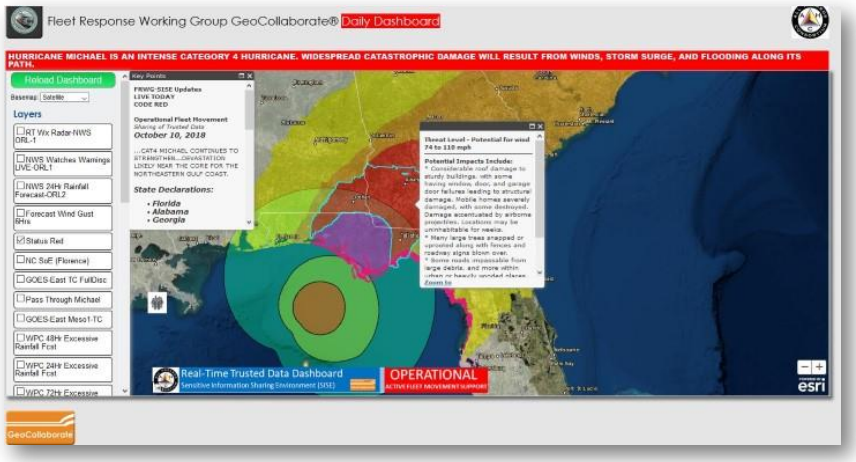
GeoCollaborate | Putting Data to Work

ACTIVE COLLABORATIVE SESSION

6

GeoCollaborate

GeoCollaborate | Collaborative Dashboard



- After COLLABORATIVE session is over – all data presented is available
- Geographic location (Area of Interest) can be selected by individual user
- Data updates automatically
- Leader/expert can add relevant data
- Available 24/7/365

GeoCollaborate

7

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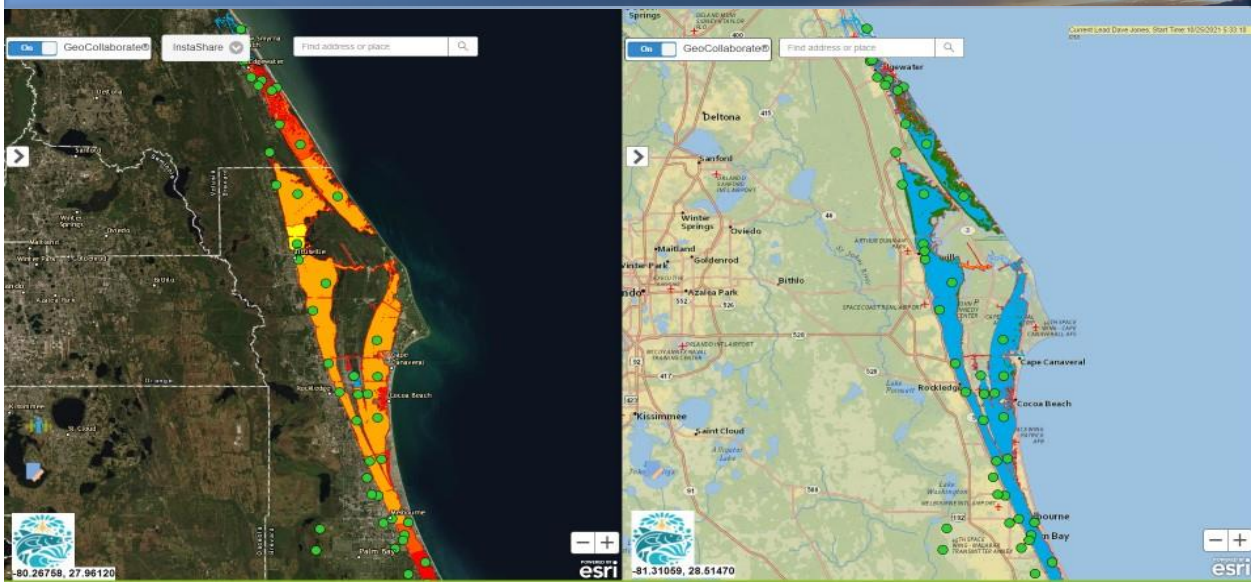
Why use GeoCollaborate for HABs in IRL?

GeoCollaborate

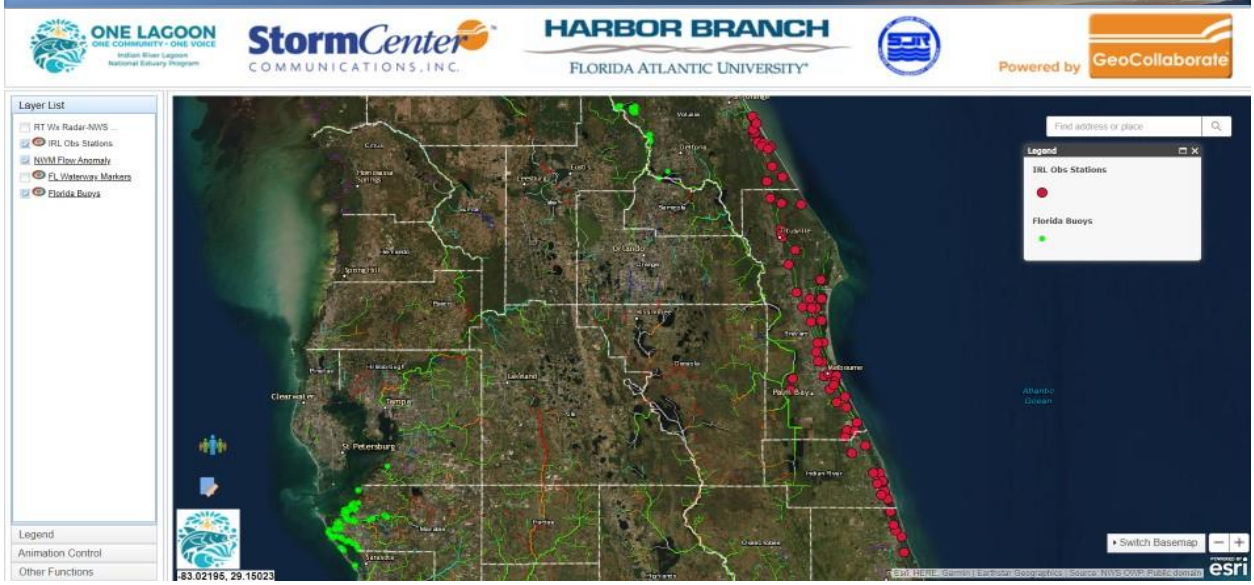
Active collaborative sessions (Leader-Followers) & Collaborative Dashboard

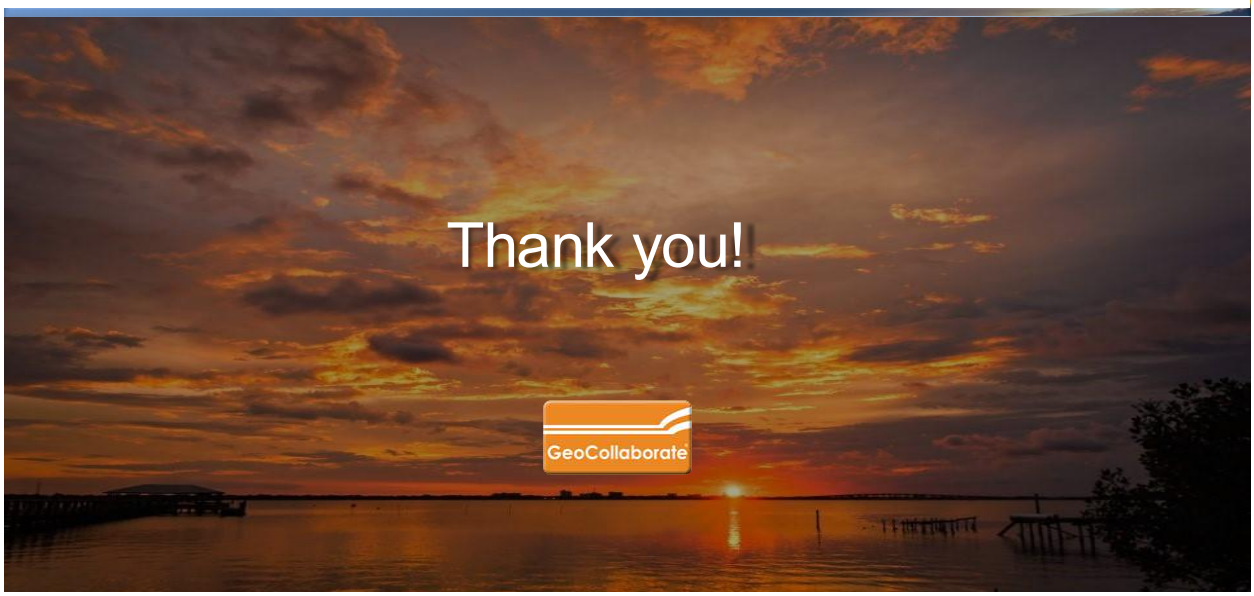
- **Scientific coordination**: verifying and validating data, identifying gaps, fostering a collaborative research approach
- **Response**: Enabling coordinated response to events, improving situational awareness, verifying reports & observations, data driven decision making
- **Communication**: Enhance and facilitate consistent messaging in briefings, provide user friendly interface, easier access to trusted data, media-ready graphics, delivery of 'key points'

GeoCollaborate Split Screen Demo



Sample Dashboard





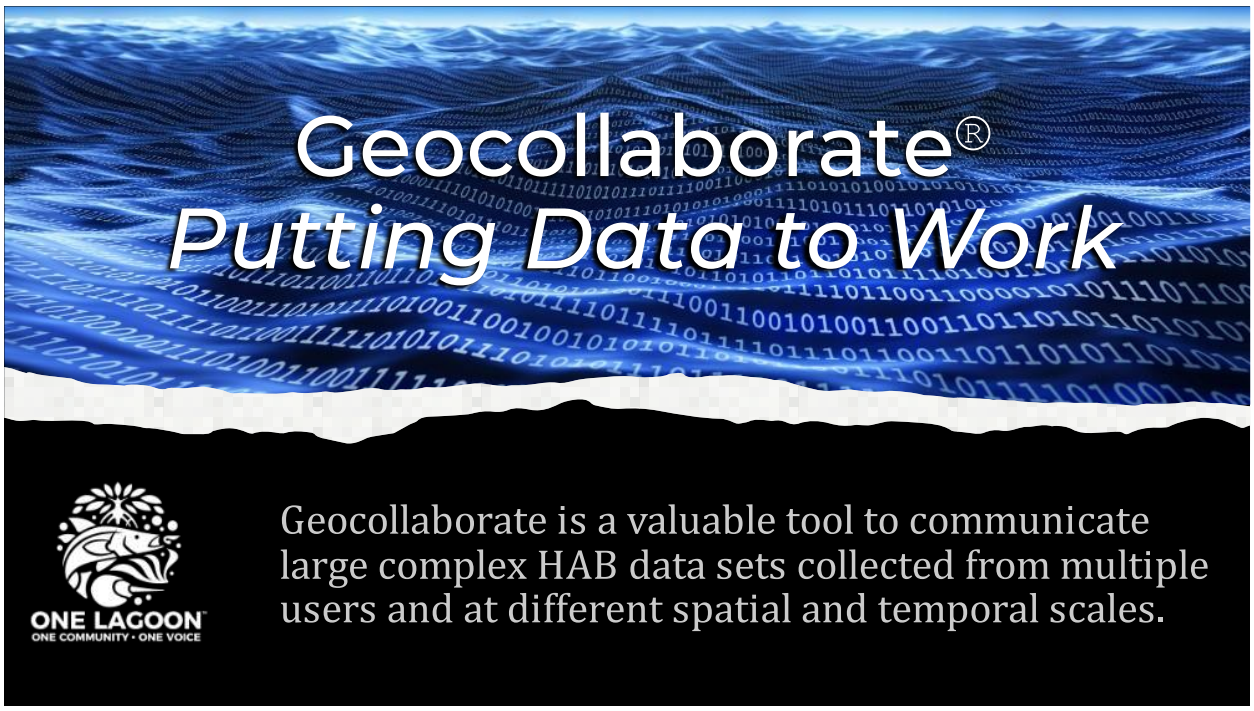
Q & A Session

SESSION WRAP-UP

Some Lessons Learned?

Decision Making

- There are many IRL data sources. Getting data positioned for decision making is a challenge.
- The pathway to "trusted data" is labor intensive and requires a high level of QAQC.
- Data must be formatted to integrate in Geocollaborate.
- Real-time data has value. Lack of data QAQC introduces risks.
- Geocollaborate Instance helps visualize gaps in the monitoring network and data sets.
- A comprehensive, integrated and coordinated monitoring network for the IRL is essential.



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NATIONAL ESTUARY PROGRAM

Next Instance Session – February 2022

"Geocollaborate as a tool for HAB emergency response"

A deep dive into 2016 *Aureoumbra* bloom and fish mortality event.

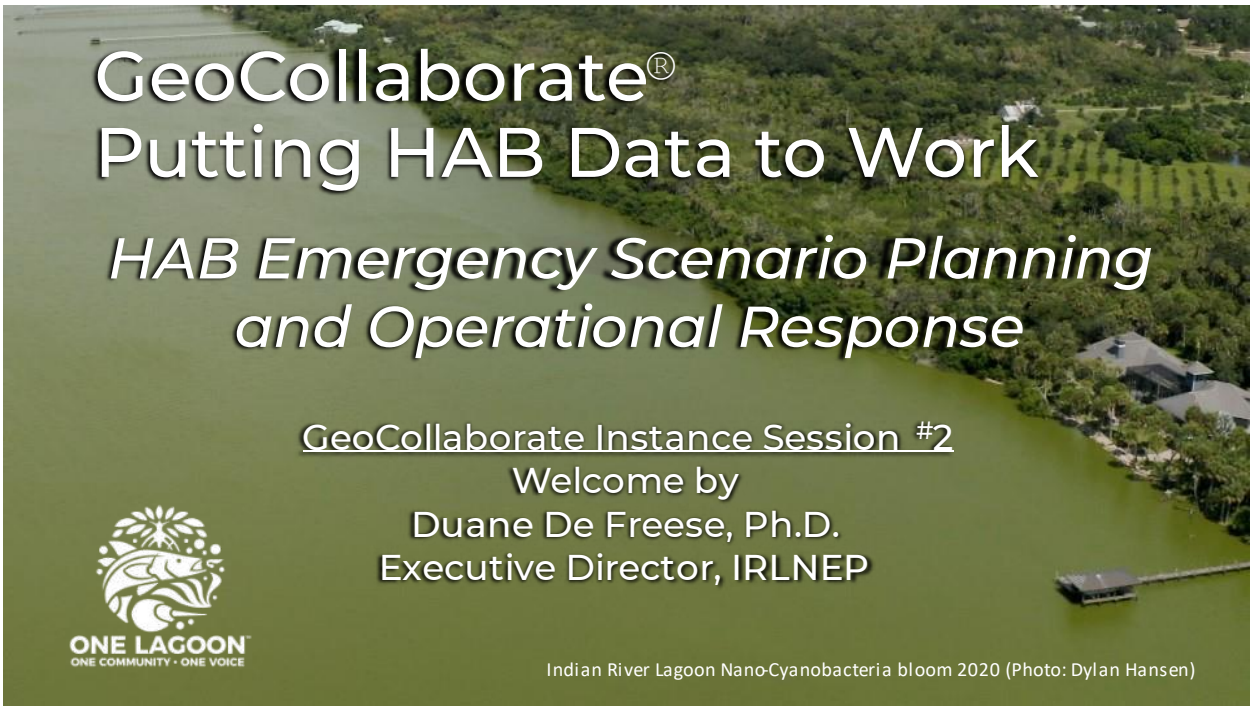
If you have data to share, contact:

Duane De Freese, Exec. Director
ddefreese@irlcouncil.org

Dan Kolodny, COO
kolodny@irlcouncil.org

Presentations GeoCollaborate: Informing Harmful Algal Bloom Emergency Response

YouTube Link : https://www.youtube.com/watch?v=OpQwnCCHUN4



GeoCollaborate
Putting HAB Data to Work

Acknowledgement:

Harmful Algal Bloom Innovative Technology Project Grant funded through the Florida Department of Environmental Protection's Office of Water Policy and Ecosystems Restoration for FY 2020-2021. Amount of the award was $963,470.

The Project Team

- Dave Jones and Ellen Prager, Ph.D. (StormCenter Communications Inc.)
- Charles "Chuck" Jacoby, Ph.D. (SJRWMD)
- Dennis Hanisak, Ph.D. (FAU - HBOI)
- Kirsten "KJ" Ayres, Kathy Hill, Dan Kolodny, Ashley Malcolm, and Duane De Freese (IRLNEP)

GeoCollaborate Instances

Communicating the Bloom

✓Data testing and GeoCollaborate training (Internal)

✓IRL HAB Hindcast Data

Today – IRL HAB Emergency Scenario Planning and Response

Late 2022 – Demonstrate GeoCollaborate as a framework for a Florida HAB Information Center

GeoCollaborate

Putting HAB Data to Work

Set the stage…

Indian River Lagoon HAB Coordination Group

17 agency representatives on regular Zoom call
Calls began in Fall 2020

- UF
- HBOI
- FWC/FWRI
- FDEP
- SJRWMD
- SFWMD
- IRLNEP
- 5 Counties
- 5 County DOH

Brown Tide Bloom Haulover. Photo Tim Kozusko, August 2012

Agenda Today

Demonstrate how data can be operationalized for HAB decision-making and emergency response

- Dave Jones: Introduce GeoCollaborate
- Dr. Chuck Jacoby: Demonstrate a HAB multi-agency response meeting with Dave Jones using GeoCollaborate
- Kirsten "KJ" Ayres – Needs for Operational Readiness

Audience Questions and Answers (Chat Questions)

Wrap Up

- De Freese - What Have We Learned? Next Steps?

Dave Jones
StormCenter Communications Inc.

"Introduction to GeoCollaborate"

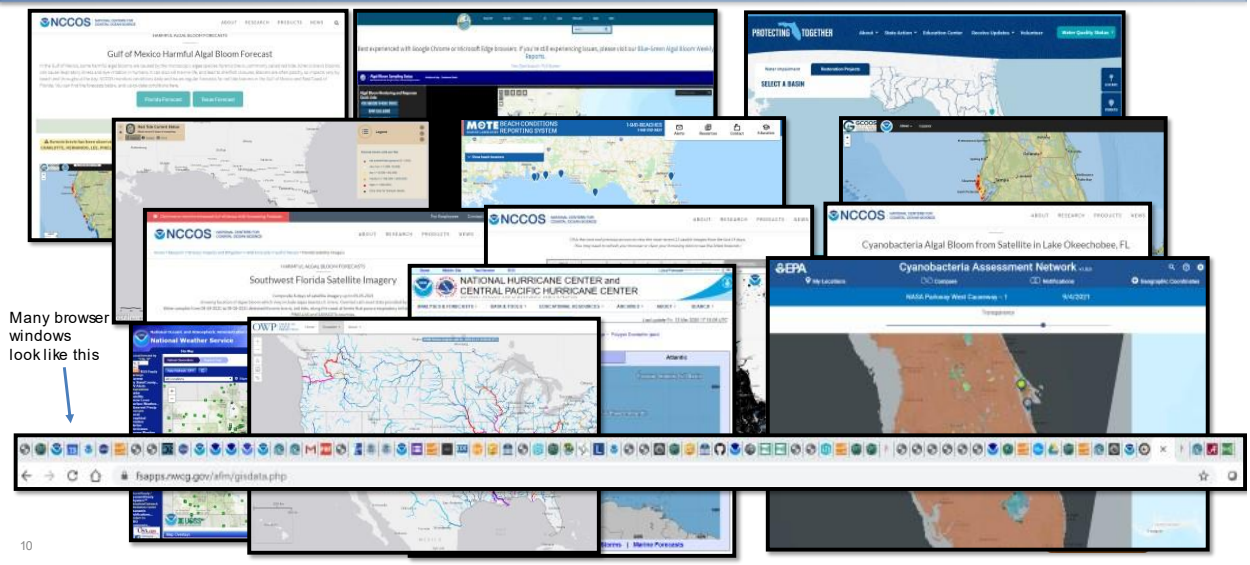
GeoCollaborate

New capability that enables:

- **Active collaboration** and **unification** of **trusted data**
- **Easy-to-use interface**
- Works **across platforms** and on **any device**

It **does not replace** existing portals or websites. It makes them more effective and provides faster targeted data access.

Unifies Relevant Disparate Trusted Data



Unifies Relevant Disparate Trusted Data

So many websites offering pieces of information

Simple Display controlled by ON/OFF switch

11

Deliver Trusted Data from disparate sources, in real-time, onto any map

GeoCollaborate

GeoCollaborate: Operationally Sharing Across Platforms

Data shared across any device

12

Deliver Trusted Data from disparate sources, in real-time, onto any map

GeoCollaborate

GeoCollaborate | Putting Data to Work

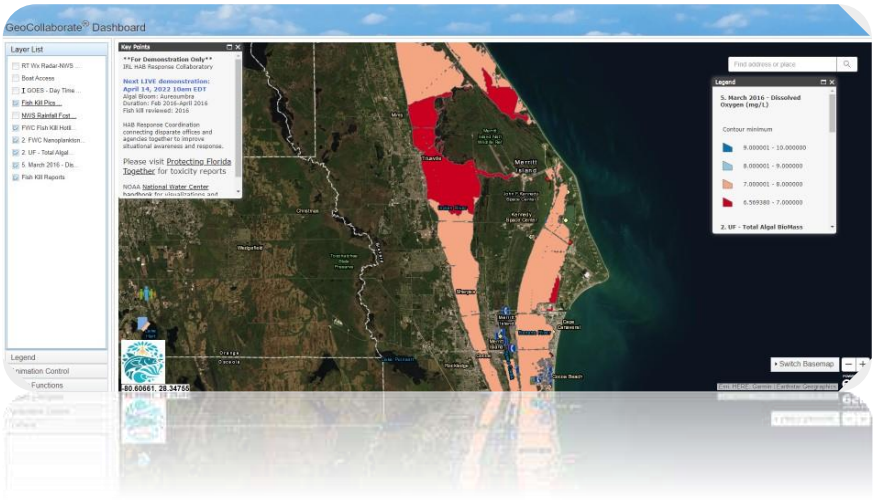
ACTIVE COLLABORATIVE SESSION

Subject matter expert (SME) identifies relevant datasets, interprets them & provides impact-based decision support services

Many analysts spend 80% of their time just looking for data with 20% left for putting it to use || Unlock time for more analysis

13

GeoCollaborate | Collaborative Dashboard

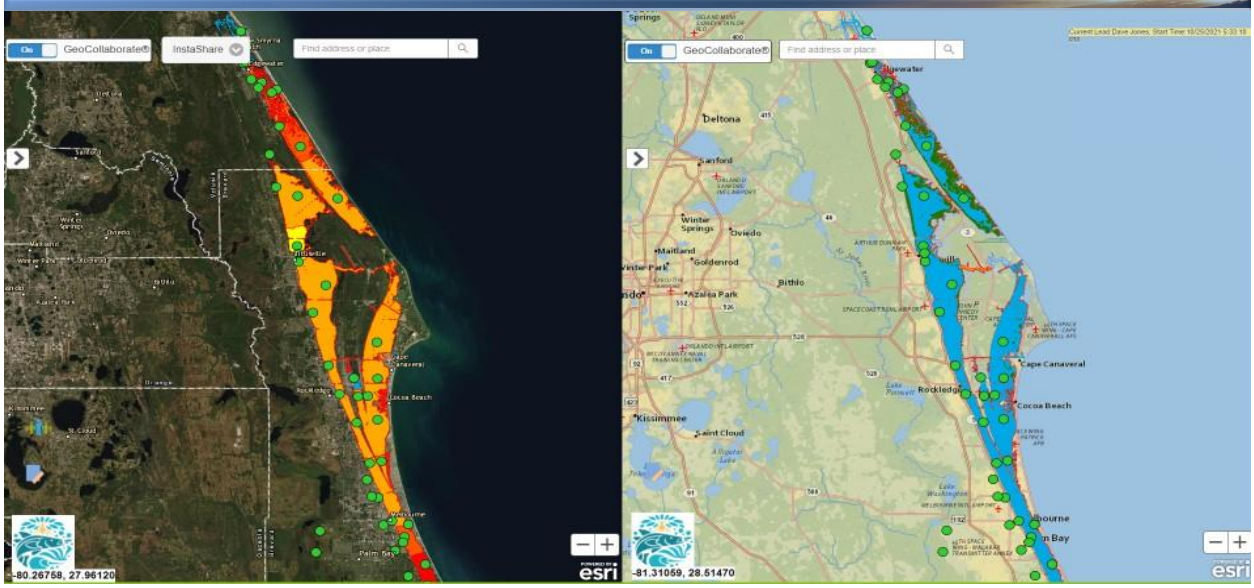


- After COLLABORATIVE session is over – all data presented is available
- Geographic location (Area of Interest) can be selected by individual user
- Data updates automatically
- Leader/expert can add relevant data
- Available 24/7/365

14

GeoCollaborate Split Screen Demo

https://irl3.geocollaborate.com/follow



About data and GeoCollaborate

Security, Permission, and Access

- Data is only being viewed, not downloaded
- Data can only be accessed if given permission (data providers can turn off their data)
- Credit is given to owner/creator that is in metadata or layer name
- GeoCollaborate's leader instance is password protected
- Links can be provided for a user to access portals or hubs for more information

Data formats currently accepted by GeoCollaborate

Raster Data Format	Vector Data Format
Dynamic	Dynamic
WMS (Web Map Service)	ATOM/RSS
KML	KML (Keyhole Markup Language)
Real Earth (Image Tiles)	GeoJSON
NOAA RSD (Image Tiles)	CSV
ATML (Map Layers)	Feature
GeoPic	PDF
Image Service	
Geolocated Photos and Videos	

*Additional formats can be added

Data and the Future

- Data with QA/QC is necessary for operational decisions
- Provisional data can be used – information only
- Flexibility available to discuss data issues
- Easily accessible data such as web services are the future for better use of data

Looking forward to bringing more data into GeoCollaborate and hope other groups that have data will work with us.

Contact Information

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Funded by FDEP INV 13

Q & A Session

SESSION WRAP-UP

Some Lessons Learned?

Decision Making

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- A comprehensive, integrated, and coordinated monitoring network providing trusted data is essential for IRL decision -making.
- GeoCollaborate can provide a valuable tool before, during, and after HABs.
- GeoCollaborate can accelerate data access from data portals and hubs resulting in favorable metrics in your websites, portals or hubs.

Next Steps

Next Instance Session
Fall 2022

GeoCollaborate
A HAB Dashboard for Florida

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Application at a statewide level as a water quality and HAB dashboard

Audience Question:

Would you like StormCenter Communications to offer a GeoCollaborate training session?

Live Poll Survey

Contact Us

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ddefreese@irlcouncil.org

If you have technical questions or data to share, contact:

KJ Ayres, GIS Coordinator
ayres@irlcouncil.org

Copy to Dan Kolodny, COO
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THANK YOU!

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