

**AMERICA'S
SEED FUND**

— SBIR —

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EPA Small Business Innovation Research (SBIR) 2023-24 Informational Webinar

April Richards, Program Manager

June 6, 2023

Welcome to the EPA SBIR Webinar

- All participants are muted, no need to unmute
- If you have any questions or comments, please use the chat
- This webinar is being recorded. By joining, you are giving consent for this event to be recorded.
- Slides and Q&A will be posted on our website after the webinar
- <https://www.epa.gov/sbir/informational-webinar-presentation-and-qa>



Agenda

- EPA SBIR Program background
- Annual solicitation
 - Topics
 - How to Apply
 - Contracting Office (Matt Huber, EPA SBIR Contracting Officer)
- Fraud Waste & Abuse (Nic Evans, EPA Office of Inspector General)
- Security Risk
 - New Requirements
 - Counterintelligence Awareness (John Martin, EPA Office of Homeland Security)
- Success Stories
- Q&A

Federal SBIR Program

- Set-aside program for small businesses to engage in federal R&D
- Goal is commercialization
- 11 agencies participate
- Budget = 3.2% of Agency's Extramural R&D Budget
- \$4 Billion across federal government
- www.SBIR.gov





Mission

EPA: Protect human health and the environment

SBIR: Seed technology innovations to meet Agency's mission

EPA SBIR Funding

- Budget: ~\$5.0 M
- One funding cycle per year
 - Phase I proof of concept = \$100,000 for 6 months
 - Phase II development & commercialization = \$400,000 for 2 years
 - Commercialization Option = \$100,000 supplement to match 3rd party investment
- Projects awarded as contracts

EPA SBIR's Last Phase I Cycle

17% funding rate

41% of small business applicants had no prior SBIR awards

44% of EPA SBIR awardees were first-time SBIR recipients

EPA SBIR Program

Applying

- Have fairly specific topics – proposals should be responsive

Funded Projects

- Provide companies with EPA technical/topic connection
- Provide commercialization support
- Communicate successful projects

Goals

- Help to protect the planet



Phase I Solicitation/BAA

(planned dates)

Open: June 28, 2023

Close: August 23, 2023

- Information at: <https://www.epa.gov/sbir/sbir-funding-opportunities>
- Subscribe to SBIR listserv: <https://www.epa.gov/sbir/sbir-listserv>



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EPA SBIR Topics

Solicitation- Broad Focus Areas

- Clean and Safe Water
- Air Quality & Climate
- Land
- Homeland Security
- Sustainable Materials/Circular Economy
- Safer Chemicals



Topics

CLEAN AND SAFE WATER

- Zero-liquid discharge brine concentrate minimization
- Treatment and destruction of PFAS in wastewater and other waste streams
- HABs sensors that can monitor cyanobacteria and toxins

AIR QUALITY & CLIMATE

- Innovative technologies to clean indoor air during wildfire smoke events and other high pollution days
- Air pollution control technologies for urban small sources

LAND

- Innovations in slurry injection technology for complex waste treatment and disposal

HOMELAND SECURITY

- AI-based indoor mapping and localization using smartphone sensor data

CIRCULAR ECONOMY/SUSTAINABLE MATERIALS

- Innovative technologies that help consumers prevent food waste in the acquisition, preparation and storage of food
- Innovative technologies or materials that will improve the US recycling system
- Innovative material reduction and reuse solutions to lower embodied carbon in the built environment

SAFER CHEMICALS

- Rubber anti-degradant technologies for tires and other rubber products that are lower concern for human health and the environment
- Innovative enhanced efficiency fertilizers

Solicitation is official word....



Clean and Safe Water

- Zero-liquid discharge and brine concentrate minimization
- Treatment and destruction of PFAS in wastewater and other waste streams
- Harmful algal blooms (HABs) sensors that can monitor cyanobacteria and toxins



Air Quality & Climate

- Innovative technologies to clean indoor air during wildfire smoke events and other high pollution days
- Air pollution control technologies for urban small sources



Land

- Innovations in slurry injection technology for complex waste treatment and disposal

Homeland Security

- AI-based indoor mapping and localization using smartphone sensor data





Circular Economy/ Sustainable Materials

- Innovative technologies that help consumers prevent food waste in the acquisition, preparation and storage of food
- Innovative technologies or materials that will improve the US recycling system
- Innovative material reduction and reuse solutions to lower embodied carbon in the built environment



Safer Chemicals

- Rubber anti-degradant technologies for tires and other rubber products that are lower concern for human health and the environment
- Innovative enhanced efficiency fertilizers



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How to Apply

Applying

- It is the responsibility of the company to select the most appropriate topic
- EPA budget is modest, so program is competitive
- Proposals must be responsive to specific topics
- Program manager can provide general advice on your proposed technology
- How to apply:
 - <https://www.epa.gov/sbir/how-apply-sbir-contract>



Anticipated Schedule

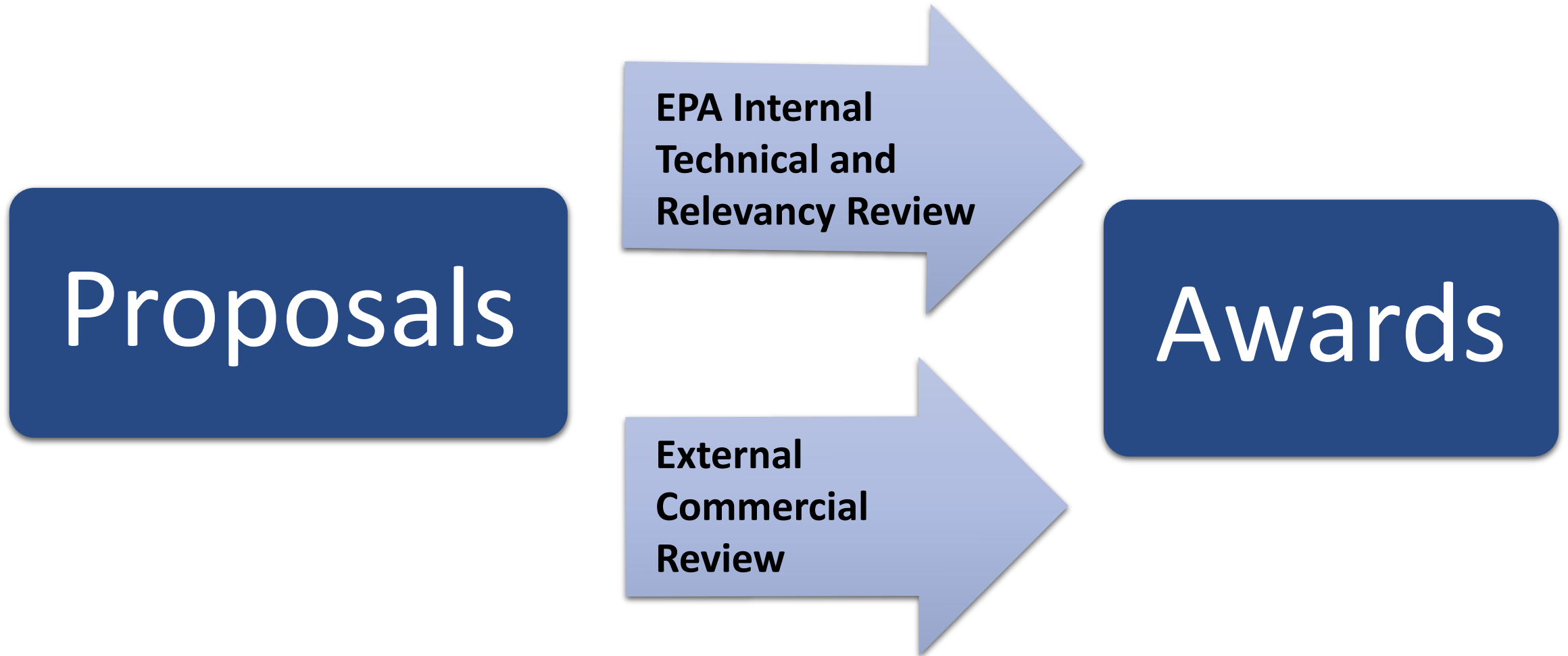
Phase I

- Solicitation Opens: June 2023
- Solicitation Closes: August 2023
- Estimated start date: December 2023

Phase II

- Solicitation Opens: end of Phase I (May 2024)
- Solicitation Closes: ~45 days later (July 2024)
- Estimated start date: October 2024

Proposal Evaluation & Selection



Proposal Evaluation Criteria

Technical Review

- Technical Approach
- Company/Team (Technical)

(1/3 of overall score)

Relevancy Review

- Impact/Relevance to topic

(1/3 of overall score)

Commercial Review

- Innovation/IP
- Market Opportunity
- Company/Team (Commercial)
- Commercialization Approach

(1/3 of overall score)

Solicitation is official word....

Apply Via FedConnect

- FedConnect is a web portal that connects EPA to vendors
- <https://www.fedconnect.net/FedConnect/>
- Can view the solicitation through “public opportunities”
- Must be registered to respond to solicitation



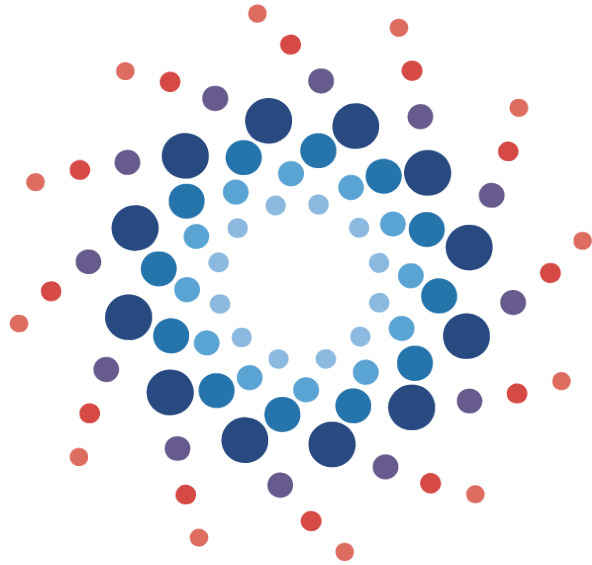
Required Registrations

- [SBA Company Registry](#): Register at SBIR.gov to obtain an “SBC Control ID”. See solicitation for instructions on how to register and how to **indicate proof of registration** in your proposal.
- [System for Award Management \(SAM\)](#): Applicants must complete and maintain an active SAM registration, **which requires renewal at least annually**. The renewal process may require as much time as the initial registration.
- [Unique Entity Identifier Number \(UEI\)](#): As of April 4, 2022, the federal government has stopped using DUNS numbers to identify entities. All small businesses are now required to use the UEI assigned by the System for Award Management (SAM.gov). All current SAM.gov registrants have been assigned their UEI and can view them on SAM.gov. Click [here](#) for more info.
- [FedConnect](#): FedConnect is the platform EPA uses for posting solicitation and proposal submission. Companies must be registered with FedConnect to submit a proposal.

Contracting Office

Matt Huber, EPA SBIR Contracting Officer

- Tips:
 - Offerors need to be registered in SAM, FedConnect, and as a Small Business Concern with the SBA – This should be your first step
 - Please read the first two pages of the Solicitation/BAA carefully
 - Please utilize the last page of the Solicitation to perform a self-check to ensure proposal is conforming
- FedConnect:
 - You will find the Solicitation posted to FedConnect; Proposals must be submitted via the response button. **Note:** Questions or proposals submitted via messages will not receive a response.
 - **Only contract related questions** submitted to me, via email at huber.matthew@epa.gov may receive a response.
- SAM:
 - Ensure you complete your registration in its entirety
 - Ensure you elect both Contracts and Grants (**THIS IS A CONTRACT**)
 - Ensure you keep your SAM renewal up to date



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Fraud, Waste & Abuse

Fraud, Waste & Abuse

Nic Evans, Office of Inspector General

- SBIR Convictions & Settlements: <https://www.sbir.gov/fraud-waste-abuse>
- SBA tutorial: <https://www.sbir.gov/tutorials/fraud-waste-abuse/tutorial-1>
 - Covers 4 main types of fraud:
 1. Misrepresentations to obtain SBIR funding (e.g., falsified letters of reference, identifying ineligible principal investigators)
 2. Misrepresentation of expended funds
 3. Misuse of award funds (e.g., using the funds to pay for purchases other than the funded research)
 4. Duplication of funds (receiving multiple SBIR awards to conduct the same research)

Report Fraud, Waste, and Abuse to the OIG



Online

[EPA OIG Hotline Complaint Form](#)

Email

OIG_Hotline@epa.gov

Phone

1-888-546-8740

Nic Evans

Special Agent in Charge

404-803-6777

Evans.Nicolas@epa.gov





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Security Risk

New Requirements – Security Risks

- SBIR Program [reauthorized](#) by Congress in 2022
- Added new requirements to address risks related to:
 - Foreign personnel/affiliations
 - Patents
 - Cybersecurity
- For EPA, new due diligence requirements:
 - Disclosure form related to foreign affiliations (required if selected for award)
 - Cybersecurity education (required if awarded)



OVERVIEW OF EPA's DEFENSIVE COUNTERINTELLIGENCE PROGRAM

FOR
U.S. EPA SBIR MEETING

JOHN MARTIN – COUNTERINTELLIGENCE PROGRAM MANAGER, OHS

JUNE 6, 2023



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Wrap up

Environmental SBIR Funding



National Science Foundation (NSF)



National Institute of Environmental Health Sciences (NIEHS)



Department of Energy (DOE)



United States Department of Agriculture (USDA)



National Oceanic and Atmospheric Administration (NOAA)

Environmental SBIR Funding- More Information

- **NSF** – “Almost all areas of technology”
- **NIEHS/Superfund Research Program (SRP)** - Hazardous Substances Remediation and Site Characterization
- **DOE** – Scientific Instrumentation to Characterize Water, Soil, and the Atmosphere, Renewable Energy, Carbon Capture and Removal, Remediation
- **USDA** - Forests, Conservation of Natural Resources, Aquaculture, Biofuels and Biobased Products
- **NOAA** – Climate, weather, oceans and coasts (including clean water and air)



Take Home Messages

- Make sure your technology fits one of the specified topic areas
- Read solicitation carefully
- Start your registrations early
- Develop a strong, readable proposal
- Address all review criteria
- Please do not wait until the last minute--submit your proposal before the deadline

Thank you for helping us protect the planet!



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Success Stories

Ecovative Design, LLC: Green Island, NY

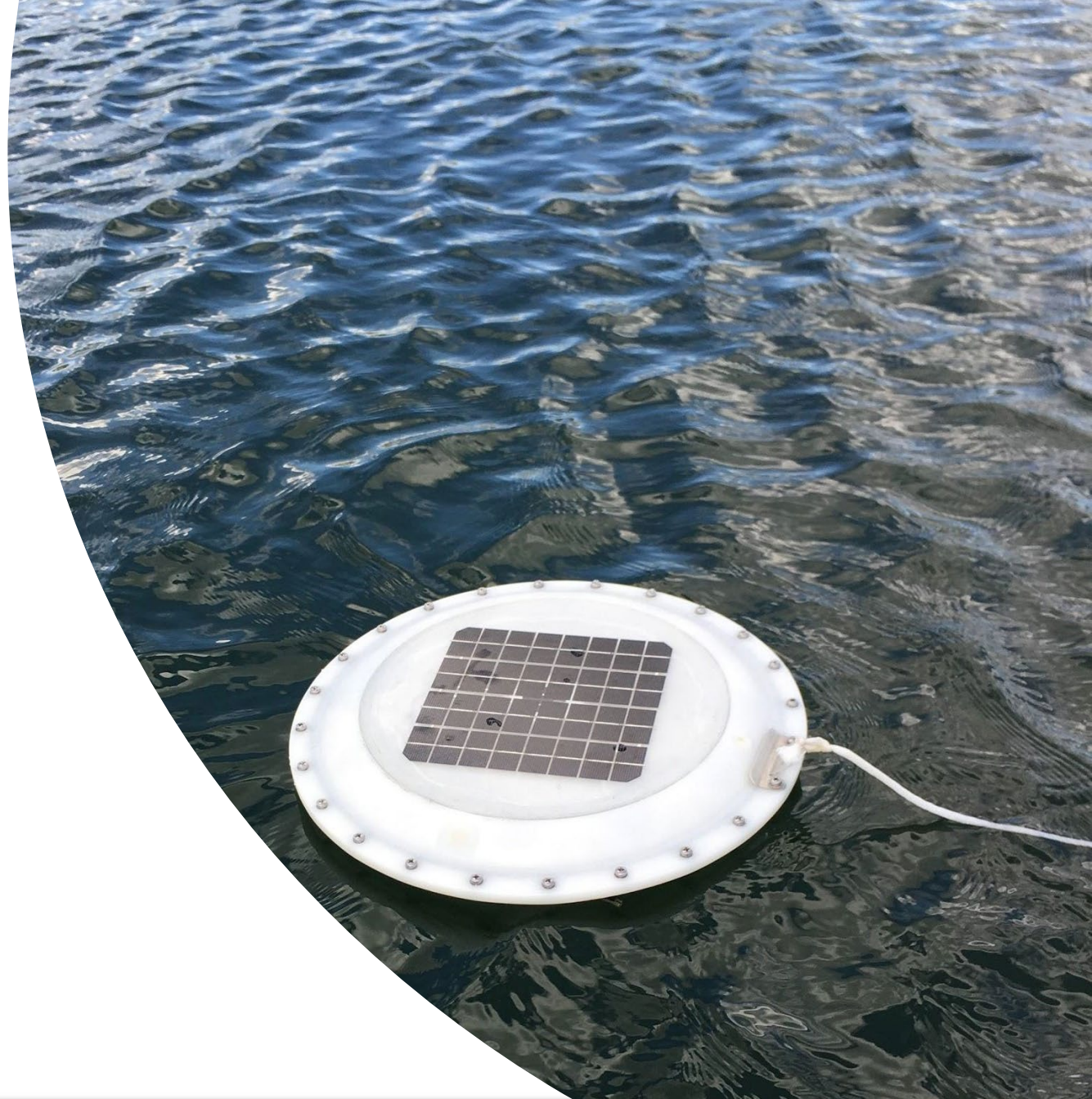
- Developed mushroom-based materials for various uses including packaging, construction materials, and furniture
- Bio-fabrication using mycelium grown on natural/waste products
- Commercial success:
 - Clients include Ikea, Dell and Crate & Barrel
 - Raised over \$110 million in capital in 2021
 - Launched spinoff, MyForest Foods, to produce gourmet mycelia for whole-food, meat-free ingredients
 - Launched the Fashion for Good Cooperative to partner with leading brands to develop sustainable products using mycelium materials



AquaRealTime, Inc.:

Boulder, CO

- Developed AlgaeTracker™, an early detection system for water contamination (including harmful algal blooms (HABs))
 - Reduces closures, expenses and health hazards leveraging Internet of Things (IOT) sensors and data analytics
- Network of floating HABs sensor buoys
- SBIR funding allowed AquaRealTime to pilot AlgaeTracker™ across the US
- Currently sell data to multiple government clients





For More Information

EPA SBIR Program Manager:

April Richards richards.april@epa.gov

SBIR Contracting Officer

Matt Huber huber.matthew@epa.gov

Website: www.epa.gov/sbir

Listserv: <https://www.epa.gov/sbir/sbir-listserv>

Program Overview/About EPA SBIR:

<https://www.epa.gov/sbir/about-epas-sbir-program>

SBA SBIR website: www.SBIR.gov



QUESTIONS?

Please submit questions in the chat.
We will address as many as time
allows.

The presentation slides and Q&A will
be posted on our website.