**Information Security Officer – EPA Campus Sensor Check List**

*If your project incorporates sensors that report information to a cloud (online sensors), please include this filled-out template as an Appendix to your QAPP. This will be a standalone document transmitted to the ORD Information Security Officer (ISO), so please fill in each section. If there are sections where information is unknown or cannot be obtained by the manufacturer, please note this.*

1. Summary of project/effort/business justification:
   1. Project name, effort, and business justification:
      1. High frequency spatial and temporal dynamics of freshwater cyanobacterial HABs. Part of SSWR 4.3.1 and focus on high priority EPA research area of Harmful Algal Blooms
   2. POC(s):
      1. Jeff Hollister, Stephen Shivers
   3. QA Manager:
      1. Joseph LiVolsi
   4. Length of project/effort:
      1. May 2021 - TBD
2. Cloud/Manufacturer Server Use.
   1. Sensor cloud(s):
      1. https://wqdatalive.com
   2. The physical location of the servers (manufacturer or cloud) the data will be stored on:
      1. Suwanee, GA
   3. Will the data from the sensor device be immediately displayed on the manufacturer’s website?
      1. Yes If yes, see d.,
   4. How is the sensor /data logger depicted (i.e. name, number, or other)?
      1. Site Name (e.g. Shubael Pond) and buoy name (X2-CB-C-VZ4G-20193)
   5. What sensor data is depicted?
      1. All of it (see 3b)
   6. Does researcher/scientist have access to the data displayed on the cloud?
      1. Yes
   7. Does the cloud provider make the sensor data available to the public? If so, what information is the public able to see.
      1. It is password protected and only available to named users that researcher has identified.
3. Sensor Technology.
   1. Summary Description:
      1. Nexsens CB-150 data buoys and X2-CB logger with YSI EXO2, Trios NICO, and Airmar 200WX
   2. Identify/Name all Data Logger/Sensor Model(s) from this vendor that are utilized:
      1. Data Logger: Nexsens X2-CB
      2. Sensors;
         1. Trios NICO UV Nitrate
         2. Airmar 200WX with Rel Baromteric Pressure, Air Temperature, Relative Humidty, Dwpoint, Wind Direction, Wind Speed, Pitch, Roll
         3. YSI EXO2 With Temperature, pH, Specific Conductivity, Dissolved Oxygen, Turbidity, Chlorophyll, Phycocyanin, and FDOM
   3. Is the Vendor on the prohibited National Defense Authorization Act (NDAA) Section 889?
      1. No
   4. Does the vendors technology utilize components from NDAA Section 889 forbidden vendors?
      1. No (Section 889 form submitted as part of purchase)
4. Sensor Placement and communication.
   1. Where (EPA room number, building, etc) will the sensors be placed?
      1. These are field deployed and will not be in an EPA building. One will be in Shubael Pond, Barnstable, MA and the other in Hamblin Pond, Barnstable MA.
   2. Physical security of the device (describe any physical security implementations to protect the device from tampering).
      1. Buoys will be placed at the center of the ponds which limits access. Additionally, each buoy weights ~100lbs and will be moored with a 70lb anchor and 10 feet of 3/8in chain. Tampering with the buoys would be extremely difficult. Also we are working with local partners that will regularly check the buoys and EPA staff will be on site every other week.
   3. Description of sensor communication/connection (i.e. USB, internet, cell, satellite):
      1. USEPA Verizon cellular
5. Information Types.
   1. What type of Information is collected (i.e. air or water quality, temperature, etc)?:
      1. Water Quality and Weather
6. Official EPA Record.
   1. Can data be download directly from the sensor itself?
      1. Yes
   2. If so, is there a planned frequency for downloading this data (information)?
      1. Yes, but still to be determined
   3. Where will the data be kept/stored (i.e. ORD provided file share):
      1. Project leads will maintain files on OneDrive and once data approved for public release copies will be made available via USEPA Github.
7. Data Integrity.
   1. Describe briefly and in general terms how the integrity of the data will be verified before decision/action:
      1. Data from the buoys will be verified through comparison with data collected, in person, by EPA staff every other week. We will compare measurements from the buoys to data collected via handheld version of the same sensors on the buoy as well as compared to water samples collected at the buoy location and independently processed in the lab.
   2. If this effort is required to use a Quality Assurance Project Plan (QAPP), how is the integrity detailed in the related project?
      1. A QAPP is required and these details are documented in the appropriate sections in the QAPP, in particular Sections B and D.
8. Data Ownership.
   1. Please provide manufacturer terms and conditions or correspondence describing the ownership of the data, for the use of online sensors in your project
      1. <https://www.wqdatalive.com/privacy>
      2. See attached email

