TECHNICAL SPECIFICATIONS

Contract title: Supply, Installation and Training of Smart/Data Buoy

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1.	2.	
Item number	Specifications required	
1	Data Buoy	
	Real time transmission of data and access via a web-based platform	
	Global Positioning System (GPS) tracking for real time tracking of smart buoy.	
	Solar modules and battery bank to support autonomous operations for at least 7 days without sunlight.	
	Battery float charger and battery harness,	
	Direct connect USB PC cable.	
	Sacrificial zinc anode for data buoy.	
	Sensors	
	Real time, remote sensing, in-situ monitoring	
	Underwater spherical PAR sensor with micro amp output.	

1.	2.	
Item number	Specifications required	
	Underwater cable resistance	
	• Temperature	
	• Salinity	
	• Turbidity	
	Biochemical oxygen demand	
	• Nitrates	
	• Phosphates	
	• pH	
	Oil/hydrocarbons	
	Dissolved Oxygen	
	• Chlorophyll a	
	Chlorophyll levels - phytoplankton population/ distribution gives information on a water body's health, composition, and	
	ecological status	
	• Conductivity	

1.	2.	
Item number	Specifications required	
	Post Installation requirements	
	• 12 months warranty	
	• 3 months maintenance	
	• Training:	
	✓ Data retrieval	
	✓ Maintenance of smart buoy, sensors and mooring requirements	
	✓ Calibration to instrumentation to include sensors and sensor replacement best practices.	