CB-75 Data Buoy

A data buoy system shall be provided to monitor the water quality in (*Specify Location*).

The buoy flotation shall be constructed of a closed cell, cross-linked polyethylene foam hull with a polyurea skin and Kevlar reinforced top coat providing 75 lbs. of buoyancy. The flotation shall be yellow in color in accordance with international data buoy standards.

The buoy structure shall consist of an internal type 316 stainless steel frame, (3) topside lifting handles and subsurface mooring eyes for tethering or mooring. The frame shall support attachment of instrument mounting cages directly below the center of the buoy.

The buoy shall be lightweight, portable and easy to deploy by a single person.

The buoy shall accommodate a battery powered X3-SUB data logger in the center of the buoy hull with cellular and satellite telemetry options and wet-mate sensor/power ports.

The buoy shall be fitted with (3) 4-watt solar panels with a waterproof termination for charging the internal sealed lead acid (SLA) battery of the X3-SUB data logger.

The buoy shall support mounting of both topside and subsurface sensors. A top plate shall be pre-drilled for mounting a 1-3 nautical mile range LED beacon, weather station mast and other sensor supports.

The buoy shall include a bottom stainless steel instrument cage with anti-rotation collar and mooring eye. The cage shall include pre-drilled holes for securing instrument clamps to accommodate water quality sondes and other subsurface sensors. The cage shall be removable for ease of maintenance and storage when not deployed.

(3) 1.5-inch pipes shall allow sensor and cable pass-through. Hatches shall cover the passages and conceal cables.

The complete data buoy system shall be Series CB-75 as manufactured by NexSens Technology, Inc. or approved equal.