

# CLEVER BUOY™

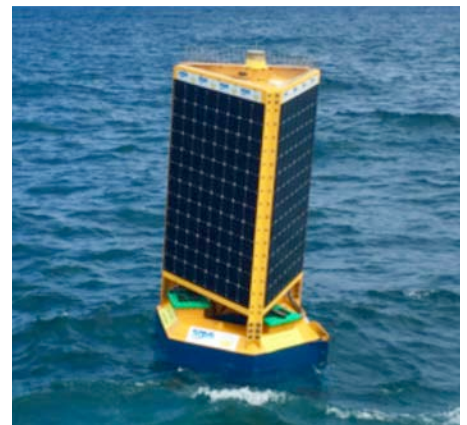


## Clever Buoy is a marine monitoring platform developed by Smart Marine Systems (SMS).

The system specialises in detecting large marine life using state of the art sonar and identification software systems to relay critical information to authorities responsible for beach safety.

The system is designed to be deployed beyond the surf zone and utilises multi beam sonar transducers that are mounted on the ocean floor coupled with newly developed detection software to scan for marine life. Clever Buoy™ creates a 'virtual net' at the deployment locations and once an object is detected in the area, the software interrogates the target's swimming pattern to determine the type of object and potential species. If the target is determined to exhibit shark like movement patterns, information is transmitted to lifeguards within seconds, notifying them of the target and the location via a real-time mobile application with automated notifications and warning information.

Clever Buoy™ is unique in the market as a viable commercially available shark mitigation method, using non-invasive technology solutions suitable to protect high intensity surf zones. The stability and robustness of the current Clever Buoy™ platform has been verified to sustainably operate in open ocean conditions 24 hours a day, 365 days a year, autonomously monitoring marine life and alerting the presence of large animals which could be a threat to beach users.



## WHAT ARE THE BENEFITS OF THE SYSTEM?

- **Non-invasive technology** that is suitable to protect beaches by creating a virtual shark net to detect sharks and alert authorities.
- There is **no by catch or impact to marine life** from the Clever Buoy system.
- Sonar **detects all marine life** in the water column, therefore allowing Clever Buoy to detect all sharks in the coverage area including those that have not been tagged.
- Suitable to **protect high intensity surf zones**, with the ability to deploy immediately behind the surf zone in often extreme conditions.
- The cost structure is **economical and competitive** with alternative options on the market.
- **Real-time environmental monitoring** applications for wind, wave, water quality and other available sensors.



SMART MARINE SYSTEMS

[www.smartmarinesystems.com](http://www.smartmarinesystems.com)

**IMPROVE  
BEACH SAFETY**



**SUPPORT  
LOCAL  
TOURISM**



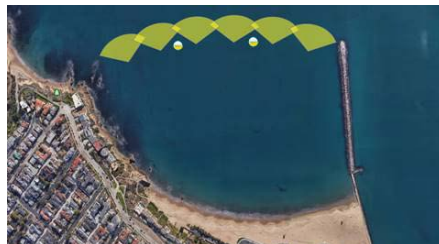
**ENVIRONMENTAL  
MONITORING**



**SAFER  
COMMERCIAL  
DIVING**



**PRIVATE  
RESORTS**



## CLEVER BUOY CAPABILITIES AND OPTIONS



### TELEMETRY SERIES

Real-time data integration for the following data metrics:

TAG RECEIVER DATA  
METEOROLOGICAL DATA



### ENVIRONMENTAL SERIES

Real-time data integration for the following data metrics:

TAG RECEIVER DATA  
METEOROLOGICAL DATA  
WAVE & OCEAN DATA  
WATER QUALITY DATA



### VIRTUAL NET SERIES

Real-time data integration for the following data metrics:

TAG RECEIVER DATA  
METEOROLOGICAL DATA  
WAVE & OCEAN DATA  
WATER QUALITY DATA  
MARINE LIFE MONITORING



Endorsed by the Australian Professional Ocean Lifeguard Association Incorporated (APOLA) and Surfing Western Australia



Level 1, 31 Cliff Street, Fremantle,  
Western Australia 6160

**P:** +61 1300 524 392

**E:** enquiry@smartmarinesystems.com

[www.smartmarinesystems.com](http://www.smartmarinesystems.com)



SMART MARINE SYSTEMS