



CASE STUDY

Sealite Buoys and Lanterns Mark Protected Habitat for Endangered Species

Northern Gulf of California, Mexico



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Project Overview



Application

Mark Habitat Boundaries for Endangered Species



Product

SL-B1250 and Poseidon SL-B1750 Buoys
SL-75 3-5NM Solar LED Marine Lantern
with GPS Flash Synchronization



Location

Northern Gulf of California, Mexico



Date

2019



Background

The vaquita porpoise is the most endangered marine mammal in the world. Only 4ft (1.2m) long, they are the smallest of the cetacean family that includes whales, dolphins and porpoises. They are found only in the Sea of Cortez, where illegal fishing activities has reduced the surviving population to approximately 20 animals.

Since 2015, joint agencies have invested \$10m+ and established the Vaquita CPR (Conservation, Production, Reproduction) Program. Their goal is to assist in the capture and safe reproduction of the fragile vaquita populations.

The dedicated agencies include:

- Mexico's Secretary of the Navy (Semar)
- Secretary of the Environment and Natural Resources (Semarnat)
- Federal Attorney for Environmental Protection (Profepa)
- Government of Baja, California

The navy has also built a new base in San Felipe. The base serves as the headquarters for the country's CPR efforts to save the vaquita.

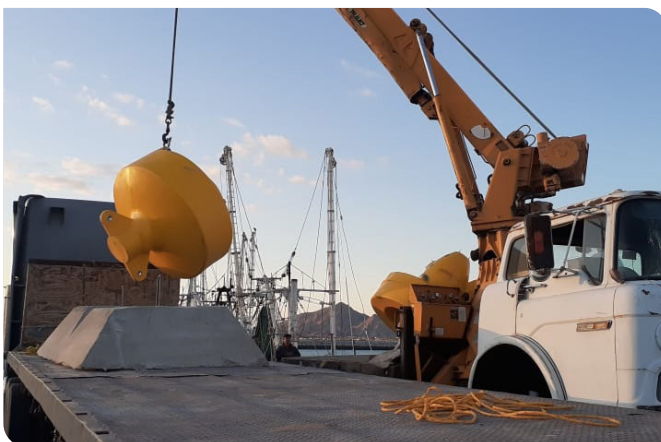
Prior efforts to stop the population decline were unsuccessful, so a new effort was undertaken by the government agencies to protect the vaquitas natural habitat.

Challenge

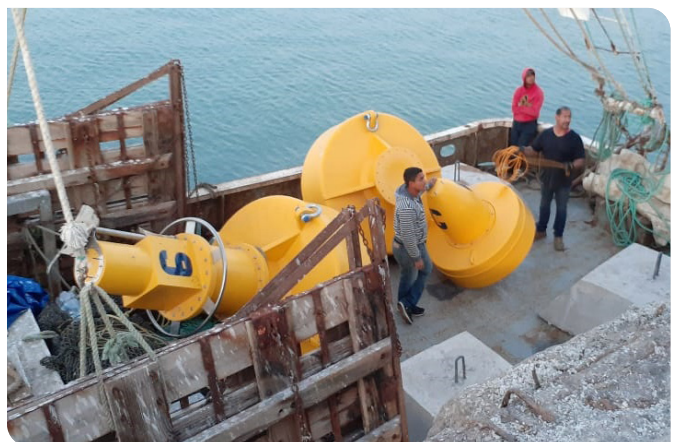
The agencies identified two areas of natural vaquita habitat that were vital to the success of the CPR Program efforts:

- The 6,378 sq mile Alto Golfo de California and Delta Rio Colorado Biosphere Reserve
- The 5,400 sq mile Vaquita Marina Refuge near the naval base at San Felipe

Semar required Aids to Navigation (AtoNs) to mark the refuge boundaries. The AtoNs would help dissuade fishing vessels and marine traffic from entering the marked areas.



Internal, interconnected stainless tie bars add lifting strength to the lightweight SL-B1750 Buoys.



SL-B1750 and SL-B1250 Buoys being readied to deploy.





Sealite's SL-75 Lantern (shown on the SL-B1250 Buoy) can be remotely programmed via Bluetooth for convenience and safety.



All of the SL-75 GPS enabled Marine Lanterns can flash in unison for outstanding visibility at night or in foul weather.

The specific AtoNs that Semar required had to be:

- Economical to transport
- Easy to deploy
- Remain highly visible in the harsh UV environment
- Made from environmentally friendly material

Solution

Sealite recommended that Semar use the Poseidon SL-B1750 Large Ocean Buoys and the robust SL-B1250 Buoys to establish the exclusionary zones at the vaquita refuges.

Sealite buoys are lightweight, buoyant and highly visible because they are rotationally molded from UV stabilized virgin polyethylene. The material is safe to use in fragile marine environments and the color of the buoy will remain vibrant over its long service life.

The Poseidon SL-B1750 is a large ocean buoy. It is constructed in 3-parts, making it easy to transport and deploy. The SL-B1250's, single-piece float section offers unparalleled stability and buoyancy for a marine AtoN of this size.

Sealite's SL-75 Solar LED Marine Lanterns complete with GPS synchronization were also used in this project. The marine lanterns helped to improve buoy visibility particularly at night and in foul weather. The 3-5NM SL-75 lantern can be remotely programmed via Bluetooth® on compatible mobile devices up to 50m away. Remote programming on the SL-75 increases personnel safety and reduces maintenance time.

Optional GPS synchronization allows the lanterns to flash in unison, improving visibility for the fisherman and vessels operating in the area.

“Sealite’s buoys and lanterns are critical for protecting the Vaquita habitat. We are proud to have been a part of the initiative.”

– Luis H. Velasquez
Business Development Manager
Sealite USA / LATAM

Outcome

The use of Sealite's large SL-B1750 and SL-B1250 Buoys and SL-75 Marine Lanterns will help prohibit fishing and vessel traffic from entering the marked refuges. It is hoped that these efforts will provide the vaquitas with undisturbed areas to reproduce in their natural habitat and help move them off the endangered species list.



Join the efforts to
save the vaquita here:

<https://www.vaquiacpr.org/>



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