CASE STUDY

U.S. Fish and Wildlife Service Gerber Reservoir Aquaculture Net Pens

KLAMATH FALLS, OREGON

PNP
PACIFIC NETTING PRODUCTS
INCORPORATED

APPLICATION: HDPE FLOATING STRUCTURES FOR AQUACULTURE

To rear and introduce juvenile short nose sucker (*Chasmistes brevirostis*) and Lost River sucker (*Deltistes luxatus*) into their natural habitat, Pacific Netting Products designed and manufactured two submersible net pens within Gerber Reservoir. The net pens were created to provide additional options for the Klamath Sucker Assisted Rearing Program to increase capacity and acclimate juvenile suckers to natural conditions prior to release. The structure was deployed in a lake system that experiences winter ice flows. As a result, PNP designed and manufactured the entire net pen structure to be submersible to a depth of at least 10 feet. The design allowed the bottom of the nets to rest upon the benthic environment, thereby allowing the suckers to exhibit a natural feeding behavior.

The project included two net pen structures (minimum 1,500 sq ft surface area each) and walkways, work areas, and an anchor system. The support structure was made of 24" HDPE MultiFunction Boom™ Series ballasted pontoons. The support structure was fitted with a non-toxic, non-corrosive, non-slip fiberglass-reinforced plastic material to provide a safe and stable work platform. The net pens were constructed with 6mm mesh black knotless nylon netting with a removable top netting panel installed with a commercial grade marine zipper.

INSTALLATION FEATURES

- 24" diameter HDPE MultiFunction Boom Series pontoons
- 4 each 3/4" air lines with all 316 SST ball valves and fittings
- 4 each 3/4" air line extensions for submergence periods
- 1½" x 1½" x 1½ x 36" wide FRP grated walkways, attached to HDPE beam blocks welded to pontoons
- 2" sch. 40 galvanized removable pipe railings x 30" tall
- 8 each 1,000 lb. Danforth type forged marine anchors
- 8 each 3/4" galvanized chain anchor lines
- 8 each 36" x 52" marine support buoys
- 39' x 39' x 20' deep (including 30" from deck to top rail)
- 6mm x 6mm mesh size top, bottom, and sides
- 77 lbs. mesh breaking strength
- 3/8" framing lines
- Includes removable top netting panel
- Top panel installed with commercial grade HD marine zipper with sliders
- 1½" x 1½", 380 27-ply polyethylene bird deterrent net