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RE: Self-Positioning Sea Cages (MASGP 10-008-01)

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Dear Michael,

Below is the summary of research regarding NOAA Aquaculture's questions on issues regarding self-positioning sea cages. This information is intended as advisory research only and does not constitute legal representation of NOAA Aquaculture by the Law Center. It represents our interpretation of the relevant laws and cases and does not necessarily reflect the views of the National Sea Grant Office, NOAA, or any other agency or entity.

Self-positioning and/or drifting sea cages

Please find below the Law Center's summary of NOAA Aquaculture's questions regarding aquaculture enclosures designed to motor and drift either within the boundaries of a fixed site or over longer distances. NOAA Aquaculture specifically asked what current laws would apply to these types of operations. Prototypes of these self-positioning net pens have been built with cages 26-92 feet in diameter equipped with a pair of 8-foot diameter propellers, which may be

steered by controllers on a boat to which the cage is tethered.¹ The self-propelled cages could offer advantages over stationary cages. The cages, unlike traditional fish farms in shallow, near-shore waters, may be placed in deeper waters, which would provide more freely circulating ocean water and natural food.² The roaming, deep-water cages could also help avoid any harmful environmental effects that may come from raising fish in one spot.³

Classification

First, it is important to determine how the sea cages or net pens would be classified to determine applicable law. For example, if the pens are classified as vessels, various federal maritime laws would apply. The U.S. Code states that “[T]he word ‘vessel’ includes every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water.”⁴ This basic definition is used in many federal maritime laws. The determination of what is a “vessel” is a matter of law for certain vessels; however, in some instances a trial court may look at factual circumstances of each particular case to decide whether something is a “vessel” for the purposes of federal maritime jurisdiction.⁵

Since the technology is not yet available, courts have not faced the question of whether an unmanned travelling aquaculture net pen would fit the Congressional definition of vessel. In examining whether a net pen is a vessel for purposes of U.S. law, a court would look at whether a net pen met the above definition of being “used, or capable of being used, as a means of transportation on water.” To meet the “capable” requirement, a watercraft’s use as a means of transportation on water must be a “practical possibility.”⁶ If a travelling net pen were designed to propel itself through water, it seems that it would meet the “capability” requirement.

A wide variety of watercraft has met the “transportation on water” requirement. In *Stewart v. Dutra*, the U.S. Supreme Court held that a large marine dredge was a vessel because it was used to transport equipment and workers over water.⁷ The Ninth Circuit granted vessel status to a submerged cleaning and maintenance platform (SCAMP) in *Estate of Wenzel v. Seaward Marine Services, Inc.*⁸ The court held “[t]he fact that the SCAMP was constructed for a purpose other than the transportation of persons or things from one place to another does not mean that as a matter of law, it is not a vessel in navigation. Strange looking, special purpose craft for the oil and gas business, far different from traditional seafaring ships have sometimes been held to be vessels.”⁹ If courts consider the SCAMP, which does not transport goods, as a vessel, it seems likely that U.S. courts could conclude that a travelling net pen as a vessel.

Like self-positioning net pens, autonomous underwater vehicles (AUVs) are a non-traditional autonomous craft that might provide an indication of whether self-positioning net pens would be

¹ Brian Handwerk, *Giant Robotic Cages to Roam Seas as Future Fish Farms?*, National Geographic August 18, 2009, available at <http://news.nationalgeographic.com/news/2009/08/090818-giant-robotic-fish-farms.html>.

² *Id.*

³ *Id.*

⁴ 1 U.S.C. § 3.

⁵ 70 Am. Jur. 2d Shipping § 8 (2008).

⁶ 543 U.S. 481, 496 (2005).

⁷ *Id.* at 495.

⁸ 709 F.2d 1326 (9th Cir. 1983).

⁹ *Id.* at 1328.

classified as "vessels." The characteristics of AUVs vary, but a standard definition "[s]elf-propelled submersible whose operation is either fully autonomous (pre-programmed or real-time adaptive mission control) or under minimal supervisory control and is untethered except, possibly, for data links such as a fiber optic cable."¹⁰ Although courts have not faced the question of whether an AUV would fit the Congressional definition of vessel, arguments have been made that AUVs could be considered either vessels outright or components of their support ships.¹¹

In international law, the International Regulations for Avoiding Collisions at Sea (COLREGS) define a vessel as "every description of watercraft, including nondisplacement craft and seaplanes, used or capable of being used as a means of transportation on water."¹² Although not legally binding, the International Maritime Dictionary defines vessel as "[a] general term for all craft capable of floating on water and larger than a rowboat. The term vessel includes every description of water craft or other artificial contrivance used or capable of being used as a means of transportation on water."¹³ Since self-positioning net pens would be "a means of transportation" for the fish inside, it is likely that they would be classified as vessels under these definitions.

Legal Possession

NOAA asked what level of control would be necessary to maintain possession over the self-positioning net-pens. Evidence of ownership of vessels varies according to the laws of the country in which the ships are built or owned.¹⁴ In the U.S., a certificate of title accompanied by possession is the customary and best evidence of ownership.¹⁵ A title document is *prima facie* evidence of ownership and presumption of ownership may be rebutted by "evidence of possession and acts of ownership, or by the fact that the vessel is marked with the name of an individual, corporation, or a flag of the state of origin."¹⁶ Although the owner of a self-propelled net pen would be able to show ownership with a certificate of title, because the pen is unmanned and therefore not "possessed" in the traditional sense, a question of ownership might arise if a third party took possession of a cage. However, although possession is required under both salvage law and the law of finds, possession does not equal ownership.

Salvage

The primary difference between the law of salvage and the law of finds is that under the law of finds, the assumption is that the finder acquires title to the property, while under salvage law, the

¹⁰ U.S. DEP'T OF NAVY, THE NAVY UNMANNED UNDERSEA VEHICLE (UUV) MASTER PLAN (Nov. 9, 2004) at 4, available at <http://www.chinfo.navy.mil/navpalib/technology/uuvmp.pdf>

¹¹ See Andrew H. Henderson, *Murky Waters: The Legal Status of Unmanned Undersea Vehicles*, 53 NAVAL L. REV. 55 (2006). Stephanie E. Showalter, *The Legal Status of Underwater Vehicles*, 38 MARINE TECHNOLOGY SOCIETY JOURNAL 1 (2004).

¹² 28 U.S.T. 3459 (Oct. 20, 1972); see also International Navigational Rules Act of 1977, 33 U.S.C. § 1601 (2006) (adopting COLREGS).

¹³ RENE DE KERCHOVE, INTERNATIONAL MARITIME DICTIONARY 890 (2d ed. 1961).

¹⁴ 70 Am. Jur. 2d Shipping § 128 (2008).

¹⁵ *Id.* citing *Hozey v. Buchanan*, 41 U.S. 215 (1842).

¹⁶ 70 Am. Jur. 2d Shipping § 128 (2008).

salvor does not acquire title, but is entitled to monetary compensation. For policy reasons, admiralty law favors salvage over finds.¹⁷

Although the law of salvage traditionally applies to vessels and their cargoes, “whatever of value found in or upon navigable waters that is properly within admiralty jurisdiction is subject to the law of salvage.”¹⁸ Regardless of whether net pens are considered “vessels,” they would still be subject to salvage law. A salvage claim requires four elements: “1) there must be a marine peril placing the property at risk of loss, destruction, or deterioration; 2) the salvage service must be voluntarily rendered and not required by an existing duty or by special contract; and 3) the salvage efforts must be successful in whole or in part.”¹⁹

Under the first requirement, a party may take possession of property to save it from “marine peril.” Property is in marine peril if it is at risk of loss, destruction, or deterioration.²⁰ This is a fact-specific determination. In most instances, a salvor must receive express or implied consent to salvage property. If the vessel is derelict, however, the owner is not required to consent to the salvage of property.²¹ The law of salvage defines “derelict property” as “property on navigable waters which is abandoned and deserted by those who were in charge of it.”²²

Salvage claims fall within the exclusive jurisdiction of federal district courts over admiralty and maritime claims.²³ Courts rarely award title to the property to the salvor, regardless of whether someone claims the property. Traditional salvage law does not authorize a court of admiralty to vest title of derelict property with the salvor.²⁴ Salvors are instead entitled to a monetary award which “should not exceed the benefits to the owner of the salvaged property, nor the value of the salvaged property.”²⁵ When no owner comes forward to assert a claim, the property is often sold and all or some of the proceeds awarded to the salvors.²⁶

If an owner does come forward, the property would be returned to him upon payment of the salvage award as set by the court. If the owner was unable to pay, the property would be sold to generate the funds to pay the salvage award. It is unlikely the salvor would be awarded title to the property in lieu of a monetary payment. While a pen rescued from sinking would be eligible for a salvage award, if the pen is operating correctly and someone “rescued” it, no award would be available.

¹⁷ The law of salvage, by encouraging individuals to rescue property that is in danger of being lost and return it to its rightful owner, is more in line with societal needs and values. The law of finds is solely concerned with title to property and thus can lead to unscrupulous behavior.

¹⁸ THOMAS J. SCHOENBAUM, *ADMIRALTY AND MARITIME LAW* § 16-2 (4th ed. 2004).

¹⁹ *Id.* at § 14-1.

²⁰ *Id.*

²¹ *Id.*

²² *Id.* at § 16.7.

²³ 28 U.S.C. § 1333(a).

²⁴ *Falgout Brothers, Inc. v. S/V Pangaea*, 966 F.Supp. 1143, 1145 (S.D. Ala.1997).

²⁵ *Am. Jur. Salvage* § 58.

²⁶ *Falgout Brothers*, 966 F.Supp. at 1146 (“In a case such as this where no one has made an appearance as owner of the derelict vessel, ordering that the vessel be sold and awarding one hundred percent of the proceeds as a salvage award is justified.”); *Medina v. One Nylon Purse Seine*, 259 F.Supp. 769 (D.C. Cal. 1966) (Salvors of fishing net valued at \$15,000 were awarded \$7,500 from the proceeds of sale.).

Law of Finds

The finder of property abandoned at sea can acquire title to it, in limited circumstances, under the law of finds. "The law of finds is a common law principle granting title to the first party to discover and reduce to possession unknown or abandoned artifacts found in the sea."²⁷

Application of the law of finds is limited to two situations: "(1) where the owners have expressly and publicly abandoned their property; and (2) where items are recovered from an ancient shipwreck and no one comes forward to claim them."²⁸

A state court in Washington stated that abandonment, under the law of finds, "occurs through the act of deserting property without hope of recovery or intention of returning to it."²⁹ Abandonment is a voluntary act that "must be proved by a clear and unmistakable affirmative act to indicate a purpose to repudiate ownership."³⁰ Abandonment, therefore, is more than leaving property behind. The owner must leave the property with the intent to relinquish all claims to it. It is unlikely that net pens would be left by an aquaculture operator "without hope of recovery or intention of returning to it." The owner would likely always have an expectation that someone would be able to retrieve it.

Liability

NOAA Aquaculture also asked whether a salvage claimant could 1) claim that the value of the property saved should include potential liabilities to third parties, and 2) who would be liable for losses sustained by original owners in the event of a salvor unsuccessfully attempting a salvage. First, salvors are entitled to a monetary award which "should not exceed the benefits to the owner of the salvaged property, nor the value of the salvaged property."³¹

*Traditional criteria for salvage awards are: 1) time and labor expended by the salvors in rendering the salvage service; 2) the promptitude, skill, and energy displayed in rendering the service and saving the property; 3) the value of the property risked or employed by the salvor, and the degree of danger to which this property was exposed; 4) the value of the property saved; and 5) the degree of danger from which lives and property are rescued.*³²

Courts have declined "to consider additional, more speculative factors in calculating the award," including "the value to the salvaged interest in being spared potential liability to third parties."³³ Therefore, it is likely that a court would not include potential liabilities to third parties in calculating a salvage award.

If a salvor negligently damages property during a salvage operation, the salvor would be liable for damages. The salvage award would be reduced by the damages assessed.³⁴ If a salvor's

²⁷ *In re Tortorelli*, 66 P.3d 606, 611 (Wash. 2003).

²⁸ SCHOENBAUM, *supra* note 21, at § 16-7.

²⁹ *Nunley v. M/V Dauntless Colocotronis*, 863 F.2d 1190, 1198 (5th Cir. 1989).

³⁰ *The Port Hunter*, 6 F.Supp. 1009, 1011 (D. Mass. 1934).

³¹ Am. Jur. Salvage § 58.

³² SCHOENBAUM, *supra* note 21, at § 14.5.

³³ *Id.*

³⁴ SCHOENBAUM, at § 14.4.

actions are grossly negligent, a court may forfeit the salvage award altogether and even award damages against the salvor when damages exceed the salvage award.³⁵

International Law

Generally, U.S. maritime law incorporates relevant treaties, statutes, and international obligations.³⁶ “The general maritime law of salvage can be considered as part of the *jus gentium*, customary international law.”³⁷ The United Nations Convention on the Law of the Sea (UNCLOS) of 1982³⁸ preserves the law of salvage and finds under admiralty and maritime law.³⁹

The International Convention on Salvage of 1989 (Salvage Convention)⁴⁰ requires all parties involved in salvage operations to exercise due care. Article 8 of the convention also introduces the element of environmental protection into marine salvage. Under Article 13, the criteria for a successful salvage award includes “the skill and efforts of the salvors in preventing or minimizing damage to the environment.” And, Article 14 provides for “special compensation” equal to the expenses of the salvor in preventing or minimizing damage to the environment even if the vessel is lost.

NOAA's Role

NOAA also asked what regulatory authority it would have over the self-positioning sea cages under current law. NOAA's Aquaculture Policy lists 22 federal statutes under which it “has a strong statutory basis for the promotion and regulation of marine aquaculture.”⁴¹ NOAA has asserted that aquaculture facilities within the Exclusive Economic Zone are subject to the Magnuson Act. A Memorandum from NOAA recognized that “the Act's expansive definition of ‘fishing vessels,’ which includes any ‘craft’ used to aid or assist in fishing or related activities such as storage, is sufficient to bring any barge used for aquaculture activities and any structure used to support and anchor aquaculture net-pens within the purview of the Magnuson Act.”⁴² Unless a court rules otherwise, NOAA would maintain any authority over traveling net pens through the Magnuson Act, as long as the net pens remained within the EEZ. It is worth noting that a lawsuit has been filed in federal district court challenging the Fishery Management Plan for Regulating Offshore Marine Aquaculture in the Gulf of Mexico, alleging that NOAA and the Gulf of Mexico Fishery Management Council do not have authority to issue permits under the MSA.

Under the Magnuson-Stevens Act, NOAA Fisheries, NMFS parent agency, must authorize fishery management plans (FMPs). An FMP must “describe and identify essential fish habitat for

³⁵ 16 J. Envtl. L. & Litig. 81, 96-97.

³⁶ SCHOENBAUM, at § 14.1.

³⁷ *Id.*

³⁸ UNCLOS came into force on November 16, 1994.

³⁹ U.N. Doc. A/CONF. 62/122 (1982), 21 I.L.M. 1261 (1982) \ Art 303 (3).

⁴⁰ The Convention came into force on July 14, 1996. The U.S. ratified it in 1991 and it has been incorporated into U.S. law as a self-executing treaty.

⁴¹ <http://swr.ucsd.edu/fmd/bill/aquapol.htm>.

⁴² Memorandum from Jay S. Johnson, NOAA Deputy General Counsel, and Margaret F. Hayes, NOAA Assistant General Counsel for Fisheries, to James W. Brennan, NOAA Acting General Counsel (Feb. 7, 1993).

the fishery based on the guidelines established by the Secretary... minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat." 16 U.S.C. 1853(a)(7). If the NOAA memo is upheld, NOAA could authorize FMPs for aquaculture that would provide conservation and management of the EFH. NOAA might take into consideration the specific characteristics and potential hazards of traveling net pens-such as hatchery fish escaping-when approving an FMP.

I hope you find the above information is useful. The Law Center would be happy to conduct any follow-up research if you have any additional questions. Thank you for bringing your questions to the Law Center and we look forward to working with you in the future.

Sincerely,

Terra Bowling
Research Counsel