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The United States' Application of Precaution in **Managing Living Marine Resources**

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Abstract

This article surveys the application of "precaution" by the United States (US) in its management of living marine resources. The US has not yet implemented the precautionary principle into its environmental legislation, but regulators, courts, and agencies often rely on precautionary approaches in applying the legislation. An overview of precaution, its background and a description of the many forms it can take is presented first, followed by an overview of the major US federal legislation intended to protect living marine resources, how regulators, courts and agencies apply precautionary approaches in applying the legislation and how federal rules allow individual states to manage living marine resources. A sampling of states and regional state alliances that have applied precautionary approaches is provided and finally a unique international agreement that applies precaution in managing the waters of the Great Lakes is assessed.

Keywords

precautionary approach; precautionary principle; living marine resources management; United States ocean management, Great Lakes

Introduction

Overview

The purpose of this article is to survey the application of "precaution" by the United States (US) in its management of living marine resources. Although the US has not yet implemented the precautionary principle into its environmental legislation to the same extent as Europe, the US applies elements of precaution in managing its living marine resources. An overview of precaution, its background and a description of the many forms it can take is presented first, followed by an overview of the major United States' federal

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legislation intended to protect living marine resources.¹ Although the major federal legislation does not incorporate precaution expressly by name, regulators, courts, and agencies often rely on precautionary approaches in applying the legislation, and some examples are given. An overview of how federal rules give power to or allow individual states² to manage living marine resources is provided next, followed by an examination of a sampling of states and regional state alliances that have applied precautionary approaches in their application of the rules in protecting marine living resources. Finally, the article assesses a unique international agreement, where US states and Canadian provinces have joined together in applying precaution in managing the waters of the Great Lakes.

The US Role from an International Perspective

The US claims an exclusive economic zone (EEZ) of 3.4 million square miles of ocean and 90,000 miles of coastline.³ The US EEZ is the largest of any country in the world.⁴ Its actions have a greater impact on the marine environment than any other single country and a greater impact than many countries combined. Examining the US internal rules and its use of the precautionary approach is critical to understanding what can be accomplished in international marine environmental protection.

Furthermore, with recent elections in the US, Congress seems to be back-tracking on recent environmental gains. The most obvious example of this is a bill working its way through the House of Representatives that would prevent the Environmental Protection Agency from regulating greenhouse gases as a pollutant under the Clean Air Act.⁵ Republicans portray themselves as "strict

¹ The article will not address other significant United States (US) federal legislation such as the Clean Air Act, the Clean Water Act, the Outer Continental Shelf Lands Act and the National Environmental Protection Act. While all of these have elements that can affect living marine resources, they are not primarily intended to manage such resources.

² For the rest of this article, the first letter of the noun "state" is not capitalized when it refers to one or more of the individual states that collectively make up the United States. It is capitalized when used as part of the phrase 'United States' or 'US' or when the passage is quoted directly from another source, normally when used to mean a country.

³ National Oceanic and Atmospheric Administration, Special Projects Office, "USEEZ: Boundaries of the Exclusive Economic Zones of the United States and territories" (2005); http://coastalmap.marine.usgs.gov/GISdata/basemaps/boundaries/eez/NOAA/useez_noaa.htm. All websites cited in this article were accessed 7 July 2011.

⁴ Ibid.

⁵ Energy Tax Prevention Act of 2011, H.R.910 112th Cong. which would reverse the United States Supreme Court's decision, in *Massachusetts v. EPA*, 126 S Ct 2960 (2006), requiring the EPA to regulate greenhouse gas emissions.

constitutionalists" and the US Constitution does not specifically allow the federal government to regulate the marine environment. Any positive developments at the US federal level during the current Congress are unlikely. But less well known is that the US federal government has already delegated many of its responsibilities for managing the marine environment to state governments. Through their participation in fishery management councils, states also have significant control over fisheries. Under the Coastal Zone Management Act, states have veto power over marine development plans. State governments, individually and collectively with their neighbors, are incorporating the precautionary approach into their living marine resource management.

Overview of "Precaution" in International Environmental Law

Background of Precaution in International Environmental Law

Early international conventions rejected precaution as an overriding principle in addressing environmental issues, ⁶ but as time passed countries began specifically acknowledging the principle in their own, domestic legislation. In the 1970s, Germany introduced the concept of *Vorsorgeprinzip* into its law. ⁷ Also in the 1970s, the US enacted the Clean Air Act⁸ and courts have held that this statute is "precautionary." ⁹ Precaution as a legal principle has developed in parallel to a science concept called 'post-normal science'. It holds that conventional scientific approaches are insufficient in today's world, because the issues are so complex and the consequences of failing to act are so great. Post-normal science suggests that a new precautionary approach is needed. ¹⁰

As late as 1982, the United Nations Convention on the Law of the Sea (LOSC) did not incorporate precaution specifically.¹¹ The LOSC is the most

⁶ Donna R. Christie and Richard G. Hildreth, *Coastal and Ocean Management Law* (3rd ed., Thomson/West, St. Paul, MN, 2007) 22, where the authors describe how drafters implicitly rejected the precautionary principle.

David Freestone, 'Chapter 8: The Marine Environment', in: Jonathan B. Wiener, Michael D. Rogers, James K. Hammitt and Peter H. Sand (eds.), *The Reality of Precaution: Comparing Risk Regulation in the United States and Europe* (RFF Press, London, UK, 2011) 9.

⁸ U.S. Environmental Protection Agency, 40th Anniversary of the Clean Air Act; http://www.epa.gov/air/caa/40th.html.

⁹ Ethyl Corp. v. Environmental Protection Agency, 541 F2d 1, 5 (DC Cir 1976).

¹⁰ Jerry Ravetz, 'The post-normal science of precaution' (2003); http://www.iris.ufsc.br/projetopar/docs/RAVETZ.PDF.

¹⁹⁸² United Nations Convention on the Law of the Sea, 1833 UNTS 396, concluded 10 December 1982, entry into force 16 November 1994; http://www.un.org/Depts/los/convention_agreements/texts/unclos/unclos_e.pdf.

comprehensive international agreement on marine and maritime matters. It was not intended solely as an environmental treaty. However, commentators suggest that precaution is imbedded in the general language found in the Convention. Articles 61 and 119 of the LOSC require that States use "the best available science" in managing living marine resources. Article 117 states that "All States have the duty to take... such measures... as may be necessary for the conservation of the living resources of the high seas." Article 192 states that the "States have the obligation to protect and preserve the marine environment." The US Senate has not ratified the LOSC. He Senate has not even held substantive discussions on many of the impacts the LOSC would have in the environmental area. Some commentators believe that US law-makers are aware of the growing use, especially within Europe, of precaution as an overriding principle in addressing environmental issues and are reluctant to incorporate it so broadly as ratification of the LOSC might require.

In 1995, the U.N. Fish Stocks Agreement (the Fish Stocks Agreement)¹⁷ was concluded. In 1996, the US ratified it. The Fish Stocks Agreement implements the conservation and management of certain fish stock provisions of the LOSC.¹⁸ Article 6 specifically binds the parties to apply the "precautionary approach widely to conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks in order to protect the living marine resources and preserve the marine environment."¹⁹ As discussed more fully below, US management of its fisheries does incorporate elements of precaution.

The Rio Declaration on Environment and Development (1992), Principle 15, sets forth the commonly quoted definition of the precautionary principle. It states that:

¹² Ibid., Preamble.

¹³ See generally Lawrence Kogan, 'What Goes Around Comes Around: How UNCLOS Ratification will Herald Europe's Precautionary Principle as U.S. Law' (2009) 7 Santa Clara Journal of International Law 23. See also Richard Hildreth, 'Achieving Fisheries Sustainability in the United States' (2006) 36 Environmental Law Reports 10833.

¹⁴ The Library of Congress: Thomas http://thomas.loc.gov/.

¹⁵ Kogan (supra note 13) at 31.

¹⁶ Ibid. at 41.

¹⁷ Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 2167 UNTS 3, concluded 8 September 1995, entry into force 11 December 2001; http://www.un.org/Depts/los/convention_agreements/texts/fish_stocks_agreement/CONF164_37.htm.

¹⁸ Fish Stocks Agreement, ibid.

¹⁹ *Ibid.*, Article 6:1.

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, *lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures* to prevent environmental degradation.²⁰ [Emphasis added.]

The United Nations Framework Convention on Climate Change (UNFCCC) repeats this language almost verbatim: "lack of full scientific certainty should not be used as a reason for postponing such measures."²¹

The US has been particularly cautious in using the words 'precautionary principle', especially as Europe defines the concept.²² The word 'principle' suggests that precaution should be an overriding doctrine in making policy and drafting legislation and the US is not willing to adopt it so broadly. The approach of many decision-makers in the US is that government should not implement regulations unless there is a clear and immediate threat. In fact, many are opposed outright to the precautionary principle.²³ Precaution by definition applies to situations where the threat is neither clear nor immediate. The US has reluctantly accepted the words 'precautionary approach' and has been willing to apply it on a case-by-case basis, especially as it applies to management of US fisheries.²⁴ The remainder of this article discusses some of the precautionary approaches the US has taken.

²⁰ The United Nations Conference on Environment and Development, held in Rio de Janeiro from 3 to 14 June 1992, U.N. Doc. A/Conf.151/26 (Vol. I), 31 I.L.M. 874 (1992). While the United States did not make a formal reservation to this definition in its ratification, it argued strongly for the qualifications that were included in the final version. Freestone (*supra* note 9) at 178.

²¹ United Nations Framework Convention on Climate Change, 2167 1771 UNTS 107, concluded 9 May 1992, entry into force 21 March 1994; Article 3:3.

²² Freestone (*supra* note 7) at 177, where the author states "the U.S. State Department resisted—and continues to resist—the use of the term "precautionary principle", preferring the term "precautionary approach". At the IMO, the United States seemed to be happier endorsing specific actions that could be seen to be precautionary—rather than endorsing the principle per se." See also, in general, *Final Recommendations of the Interagency Ocean Policy Task Force* (19 July 2010); http://www.whitehouse.gov/files/documents/OPTF_FinalRecs.pdf, discussed in more detail *infra*.

²⁵ See 'Fear of the Future', Wall Street Journal (New York, 10 February 2000) A18, where the authors accuse environmentalists of using the precautionary principle to "trump scientific evidence and move directly to banning things they don't like." For a more complete description of how the precautionary principle influences United States politics, see Marcilynn A. Burke, 'Green Peace? Protecting Our National Treasures While Providing for Our National Security' (2007–2008) 32 William and Mary Environmental Law and Policy Review 803 at 869.

²⁴ Freestone has suggested that the US has been more proactive in applying precaution to managing its fisheries than the EU; (*supra* note 7) at 178 and 179.

The Many Forms of Precaution

The US has not broadly accepted the precautionary principle as its overriding policy doctrine, but it does incorporate precautionary approaches in managing living marine resources. Like in the LOSC, the legislation itself can be "precautionary", without specifically using the words. Regulations interpreting and applying legislation can incorporate, explicitly or implicitly, precautionary approaches. Federal agencies under the Secretaries of Commerce and the Interior can apply them in considering permit applications. Parties can prevail in courts by using precautionary arguments. Most importantly, US states, through rights granted under the Magnuson-Stevens Fishery Conservation and Management Act and the Coastal Zone Management Act, can apply precautionary approaches in jointly managing living marine resources with the US federal government.

Furthermore, the application of precautionary approaches can take many legal forms. Those forms can range from specific, express incorporation of precautionary approaches, like in the Rio Declaration, Principle 15. They can be imbedded in the "spirit" of precaution in legislation like the Marine Mammals Protection Act, which places an almost total moratorium on the taking of marine mammals. The "hazard-based" approach to environmental problems like those the European Union (EU) uses clearly incorporates precautionary approaches. The US "risk-based" approach also has overtones of precaution, although a "cost-benefit" analysis tempers its application. 25 Who has the burden of proof in an environmental controversy also can be indicative of precautionary approaches.²⁶ "Ecosystem-based" approaches, like those found in the Endangered Species Act's concept of critical habitat and in the Marine Sanctuaries Act, are based on the idea that the best way to preserve a species is to preserve everything within its living area, even though the interaction between all of the species within the habitats is unknown.²⁷ A concept like "best available science" can be precautionary when it "gives the benefit of

²⁵ See Kogan (supra note 13) at 7. See also, in general, Rebecca M. Bratspies, 'Rethinking Decision-making in International Environmental Law: A Process-Oriented Inquiry into Sustainable Development' (2007) 32 Yale Journal of International Law 363 at 381, where the author describes cost benefit as "an antidote and antonym" to precaution.

²⁶ Richard Hildreth, M. Casey Jarman and Margaret Langlas, 'Roles for a Precautionary Approach in Marine Resources Management', 19 Ocean Yearbook 33-61 (Aldo E. Chircop and Moira L. McConnell, eds., University of Chicago Press, Chicago, IL, 2005). See also, Carolyn Raffensperger and Joel Tickner, Protecting Public Health & the Environment: Implementing the Precautionary Principle 27 at 28 (Island Press, Washington, D.C., 1999).

John Kostyack and Dan Fohlf, 'Conserving Endangered Species in an Era of Global Warming' (2008) 38 Environmental Law Reports 10203 at 10208.

doubt to the species"²⁸ or when it requires less than conclusive proof.²⁹ Finally, concepts like "adaptive management", where action is undertaken but left flexible enough to respond to new information, have precautionary elements.³⁰ Much of the US law incorporates these concepts, meaning that the US does apply precautionary approaches in its management of living marine resources, albeit not as an overriding principle and certainly not uniformly across all of its rules.

Overview of Major US Federal Actions Addressing Living Marine Resource Management

The US does not expressly use the words 'precautionary approach' in its federal legislation.³¹ In conservation and management of fisheries, however, the US has arguably been the most proactive of all countries in applying the precautionary approach.³² As discussed more fully below, it has also used precautionary approaches to protect marine mammals and other marine life. The US has also been willing to allow states to apply a precautionary approach in areas where they have jurisdiction. Ultimately, however, when the states use it to the detriment of a national—especially security—interest, Congress³³ and the courts³⁴ limit its use.

²⁸ Conner v. Burford (1998) 848 F 2d 1441, 1454 (9th Cir).

²⁹ Greenpeace v. National Marine Fisheries Service (1999) 55 F Supp2d 1248, (WD Wash) 1261–62. In some cases the best available science can lead to "analysis paralysis", which can be used to defer any action when clear cause and effect cannot be established with scientific certainty. See Burke (supra note 24) at 811.

³⁰ See for example, J.B. Ruhl and Robert L. Fischman, 'Adaptive Management in the Courts' (2010) 95 *Minnesota Law Review* 424, where the concept is analyzed in great detail as it is applied to managing the environment. The authors recognize that adaptive management, while having both advantages and disadvantages, does keep options open to environmental managers to react to information unknown at the time of their original decision-making.

³¹ The US has enacted significant legislation that can, directly or indirectly, affect marine living resources. This legislation includes the Clean Air Act, the Clean Water Act and the Outer Continental Shelf Lands Act, to name a few. This article is limited to major federal legislation that has the preservation and protection of marine living resources as one of its main goals.

³² See Freestone (supra note 7) at 185.

³³ See amendments made to 16 USCA §1455(d)(8), Senate Report No. 96-277 and House Conference Report No. 94-1298, amending the CZMA to require states to facilitate energy facility siting, and House Report No. 96-1012 amending the CZMA to require states to incorporate national interests in their CMPs.

³⁴ See California Coastal Commission v. United States Department of the Navy, Secretary of the Navy (2007) Case No. CV 07-01899; http://www.coastal.ca.gov/fedcd/sonar/ccc-v-navy-2-22-2007.pdf.

Magnuson-Stevens Fishery Conservation and Management Act 35 (MSA)

The US enacted the Fishery Conservation and Management Act in 1976 and the Sustainable Fisheries Act in 1996. They are referred to collectively as the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The purpose of the initial legislation was to protect the offshore fisheries from overfishing.³⁶ Congress felt that the LOSC negotiations were proceeding too slowly and needed domestic legislation to protect America's fishing industry effectively.³⁷ The MSA grants the federal government authority to manage and regulate all fisheries between the states' seaward boundaries and the seaward side of the 200-nautical-mile EEZ.³⁸ The stated purpose of the MSA is to balance the need to protect fisheries with the needs of commercial and recreational fishing.³⁹ The MSA delegates part of the federal government's responsibility for this to eight regional fishery management councils (RFMCs). Each RFMC has individual discretion in balancing the protection of fisheries and the needs of fishermen within its jurisdiction. 40 Representatives from both the Department of Commerce and state fishery management offices sit on the RFMCs, giving states an important forum to participate in the management of the fisheries.⁴¹ The RFMCs develop fishery management plans (FMPs), which the Secretary of Commerce must approve. 42 The FMPs determine who can catch fish and how, when, and where they can catch them. 43

The MSA requires that the RFMCs base their plans on "the best scientific data available", but is silent on how scientific uncertainty should be resolved.⁴⁴ Nothing in the MSA specifically incorporates the precautionary approach.

³⁵ Originally enacted in 1976, as the "Fishery Conservation and Management Act."

³⁶ See Christie and Hildreth (supra note 6) at 192.

³⁷ Ibid.

³⁸ 16 USCA §1811(a). The federal government also claims exclusive jurisdiction over the migratory range of anadromous species, except to the extent it is in foreign waters. §1811(b). ³⁹ 16 USCA §1801.

^{40 16} USCA §1852(a).

⁴¹ 16 USCA §1852(b)(1). An important criticism of the Councils' membership is that they are often dominated by industry representatives who have struggled to achieve the proper balance between conservation and economic development. Roger Fleming and Dr. John D. Crawford, 'Habitat Protection Under the Magnuson-Stevens Act: Can It Really Contribute to Ecosystem Health in the Northeast Atlantic?' (2006–2007) 12 Ocean & Coastal Law Journal 43 at 47.

^{42 16} USCA §1854.

^{43 16} USCA \$1853.

⁴⁴ 16 USCA §§1851(a)(2). 16 USCA (b)(2)(C)(i) gives the Councils the discretion to consider the best available science in deciding on the closure of areas. Fleming and Crawford (note 45) blame the New England Fishery Council of hiding behind the "best scientific data available" standard to avoid action in the face of uncertainty.

Some commentators have suggested that the MSA incorporates the precautionary approach in spirit. 45 Others have suggested that the 1996 amendments changing the definition of optimum yield from "maximum sustainable yield modified by relevant factors" to "maximum sustainable yield reduced by relevant factors" [emphasis added] indicate the adoption of a precautionary approach. 46 Furthermore, the Secretary of Commerce has issued guidelines having the "force and effect of law." 47 The guidelines specifically incorporate the precautionary approach in determining permissible bycatch levels, but not other fishery management decisions. 48 With respect to critical habitat, the courts have been unwilling to require that the Secretary apply the precautionary approach in protecting critical habitat. In NRDC v. Evans, the Secretary approved the Mid-Atlantic Fishing Council's FMP.⁴⁹ The Council had concluded that bottom-tending mobile gear could be used, in spite of having inferred damage to the tilefish's habitat from "best available scientific information". The Council referred to the uncertainty of the information and noted that there was "nothing definitively known about tilefish-mobile fishing gear interactions." The district court upheld the Secretary's approval. 50 However, some RFMCs have applied precautionary approaches in establishing their FMPs

Marine Mammals Protection Act (MMPA)

The US enacted the Marine Mammals Protection Act (MMPA) in 1972. Congress passed the legislation partly in response to the public outcry over the ineffectiveness of the International Whaling Convention to protect eight species of whales threatened with extinction. ⁵¹ The MMPA was compromise legislation between business interests that viewed marine mammals as a renewable resource and environmentalists who wanted to protect the whales. ⁵² It placed

⁴⁵ Kogan (*supra* note 13) at 111. The author cites the fact that "maximum sustainable yield became a 'limit' to be avoided rather than a target... to be achieved" suggests an implicit incorporation of the precautionary principle into the MSA.

⁴⁶ Freestone (supra note 7) at 195.

^{47 16} USCA \$1851(b).

⁴⁸ 50 CFR \$600.350(d)(3)(ii), which reads: "The Councils should adhere to the precautionary approach..." See also NOAA Technical Memorandum, 'Technical Guidance On the Use of Precautionary Approaches to Implementing National Standard 1 of the Magnuson-Stevens Fishery Conservation and Management Act' (17 July 1998) NMFS-F/SPO-##; http://www.nmfs.noaa.gov/sfa/NSGtkgd.pdf.

⁴⁹ Natural Resources Defense Council v. Evans (2003) 254 F Supp.2d 434 (SD NY).

⁵⁰ Ibid. at 436.

⁵¹ See Christie and Hildreth (supra note 6) at 232.

⁵² Ibid. at 234.

a moratorium on the taking, harassment and importation of all marine mammals, subject to several exceptions.⁵³ The MMPA gives the Secretary⁵⁴ the power to write regulations based upon the best scientific knowledge available.55

The MMPA does not expressly incorporate the precautionary approach, but precaution seems to be implicit in it. Imposing a moratorium on taking and harassment, and placing the burden of proof on the party who is requesting an exception, suggest elements of precaution. 56 Furthermore, the legislative history also suggests that the MMPA is precautionary.⁵⁷ In applying the moratorium to humpback whales, the National Marine Fisheries Service (NMFS)⁵⁸ has specifically incorporated the precautionary approach.⁵⁹ Courts have accepted the precautionary approach as an argument in holding for the Natural Resources Defense Council, Inc. in its first suit against the US Navy to limit its use of sonar equipment.60

In this case, the plaintiffs requested a preliminary injunction under the MMPA to force the US Navy to accept more limited testing of its low-level sonar equipment than originally permitted by the Secretary of Commerce. 61 The plaintiffs argued that the Secretary of Commerce improperly approved

61 Ibid. at 1013.

^{53 16} USCA §1371(a).

⁵⁴ Divided between the Secretary of Commerce and the Secretary of the Interior, depending upon the species. 16 USCA \$1362(12)(a). 55 16 USCA \$1373(a).

⁵⁶ See Hildreth (supra note 27).

⁵⁷ HR Rep No 92-707 [Dec. 4, 1971] reads in part: "In the teeth of this lack of knowledge of specific causes, and of the certain knowledge that these animals are almost all threatened in some way, it seems elementary common sense to the Committee that legislation should be adopted to require that we act conservatively that no steps should be taken regarding these animals that might prove to be adverse or even irreversible in their effects until more is known."

⁵⁸ National Marine Fisheries Service (NMFS), the agency within the Department of Commerce that is responsible for administering the MMPA.

^{59 &}quot;NMFS has determined that precautionary measures must be taken to protect the humpback whale", 50 CFR Part 224, 66 F.R. 29502 at 29503; http://frwebgate2.access.gpo.gov/ cgi-bin/PDFgate.cgi?WAISdocID=J6NN9X/1/2/0&WAISaction=retrieve.

⁶⁴⁾ Natural Resources Defense Council, Inc. V. Evans (2002) 232 F.Supp.2d 1003 (ND Cal). This case is one of a series of cases brought against the United States Navy for its use of sonar in military training and testing. It was brought pursuant to the MMPA and the plaintiffs ultimately prevailed using precautionary arguments. In a subsequent case, this time brought pursuant to the CZMA, precaution was also at issue. While the lower courts in the subsequent case were sympathetic to precautionary arguments, the US Supreme Court eventually held for the Navy, citing national security concerns. See below for further analysis of the subsequent cases. For further discussion of these cases in more detail and their impact on the balancing of national defense needs with environmental protection. See generally Burke (supra note 2).

the testing in violation of, amongst others, the MMPA and ESA, because the testing had the "potential to harass" marine animals.⁶² The plaintiffs showed that "extremely loud and far traveling LFA sonar" would at a minimum harass marine mammals and other endangered marine species, although they could not show to what extent.⁶³ The plaintiffs also showed that the sonar could "possibly" irreparably harm the marine environment.⁶⁴ This, in spite of the uncertainty, was sufficient for the court to grant injunctive relief limiting the use of the sonar, although the court stopped short of ordering a complete ban.⁶⁵

Other courts have overturned permitting decisions when agencies allow activities that would have an uncertain impact on marine mammals. In *Koke-chik Fishermen's Ass'n v. Secretary of Commerce*, the circuit court upheld the lower court's granting of a preliminary injunction against the Secretary's grant of take permits to foreign fishers for the incidental taking of the northern fur seal.⁶⁶ The Secretary had not determined the impact of his decision on the northern fur seal, so the court said that granting the permits was improper.⁶⁷

Endangered Species Act (ESA)

The US enacted the Endangered Species Act ("ESA") in 1973.⁶⁸ Its goal is to protect endangered species, including marine wildlife.⁶⁹ Its enactment was partly in response to US commitments under the Convention on the Trade of Endangered Species and other international agreements.⁷⁰ The ESA protects

⁶² NRDC v. Evans (2002) 232 F Supp2d (ND Cal) 1003, 1013. See also Natural Resources Defense Council, 'Statement from Joel Reynolds, NRDC, Regarding Navy LFA Settlement' (13 October 2003); http://www.nrdc.org/media/pressreleases/031013a.asp. As a consequence of the court's ruling, Congress amended the definition of "harassment" as it applied to "military readiness" to mean "significant potential to injure" a marine mammal. See 16 USCA §1362(18)(B)(1) and Public Law 107–314.

⁶³ Ibid. at 1053.

⁶⁴ Ibid.

⁶⁵ *Ibid.* at 1054.

⁶⁶ Kokechik Fishermen's Ass'n v. Secretary of Commerce, 839 F.2d 795, 802 (DC Cir 1988). "The MMPA does not allow for a Solomonic balancing of the animals' and fisheries' interests such as the Secretary attempted. FN15. The interest in maintaining healthy populations of marine mammals comes first and the Secretary cannot ignore the fur seals. He can include the northern fur seals in the permit only if he makes the requisite findings. Lacking such findings the permit cannot issue."

⁶⁷ Ibid.

⁶⁸ The Endangered Species Act of 1973, 16 USCA §§1531-1544.

^{69 16} USCA \$1531(b).

^{70 16} USCA \$1531(a)(4).

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two categories of species, endangered and threatened.⁷¹ Like the MMPA, it prohibits takings, subject to certain exceptions, of endangered and threatened species.⁷² Also like the MMPA, the Secretaries of Commerce and the Interior share the responsibilities of administering the ESA.⁷³ In addition to the mammals protected under the MMPA, the ESA also protects non-mammals, such as marine turtles and sea birds,⁷⁴ and it protects marine plant life.⁷⁵ Where the MMPA provides greater protection, its provisions prevail over the ESA.⁷⁶ The ESA requires all federal agencies to further the purposes of the ESA (Section 7).⁷⁷ It also instructs the appropriate Secretary to permit takings of threatened or endangered species, where an enumerated exception is met (Section 9).⁷⁸ It is important that it also protects critical marine habitat.⁷⁹

The ESA does not specifically incorporate the precautionary approach. However, a court has held that the Secretary of Commerce must apply precautionary concepts in fulfilling at least some of its obligations under the ESA. In *Greenpeace Foundation v. Mineta*, the plaintiffs filed suit against the NMFS⁸⁰ for, *inter alia*, not fulfilling its Section 7 duties.⁸¹ The NMFS had approved the Western Pacific Regional Fishery Management Council's (WPRFMC) FMP. The court held that the NMFS should not have approved the plan, because the information regarding the plan's impact on the endangered monk seals' diet was uncertain.⁸² However, the court was not willing to use precautionary concepts to grant summary judgment on the Section 9 issue.⁸³ The court stated that the same uncertain information was insufficient to hold that the NMFS was allowing unauthorized takings.⁸⁴ The court did not explicitly override precaution, as this was only a summary judgment request. It stated that the ruling did "not assure victory for the NMFS."⁸⁵ The court did not condone "head-in-the-sand" attitudes by the NMFS either.⁸⁶ But the court

⁷¹ 16 USCA \$1533.

^{72 16} USCA \$1538(a)(1).

^{73 16} USCA. \$1533(a)(2).

⁷⁴ 16 USCA \$1531.

⁷⁵ *Ibid*.

⁷⁶ 16 USCA §1543.

⁷⁷ 16 USCA §1536.

⁷⁸ 16 USCA \$1539.

^{79 16} USCA §1532(5)(a).

⁸⁰ See supra note 59.

^{81 (2000) 122} FSupp2d 1123, 1126 and 1127 (DC Hawaii).

⁸² Ibid. at 1127.

⁸³ Ibid.

⁸⁴ Ibid. at 1133.

⁸⁵ Ibid. at 1134.

⁸⁶ Ibid.

did appear to apply two different standards. For general federal agency action under Section 7 of the ESA, it required the agency to apply precaution. For issuing take permits under Section 9, it seemed less willing to do so.

The other department that the ESA tasks with environmental decisions is the Department of the Interior. In 2008, the Fish and Wildlife Service (FWS)⁸⁷ held that the polar bear was threatened.⁸⁸ However, it did not apply precaution in refusing to designate the polar bears' critical habitat. It said that it needed "additional time to fully evaluate physical and biological features essential to the conservation of the polar bear" before it could do so.⁸⁹ Courts have not looked at whether the FWS's refusal was proper under the ESA.

Coastal Zone Management Act (CZMA)

The Coastal Zone Management Act (CZMA) is the US legislation that gives states significant control over managing resources in the "coastal zone". The US first enacted it in 1972. 90 Its goal is "to preserve, protect, develop… the resources of the Nation's coastal zone for this and succeeding generations." The CZMA covers the waters and the submerged land traditionally controlled by the state, i.e., the "coastal zone." The coastal zone generally includes an area extending seaward three nautical miles from the mean high-tide line. 93 The CZMA recognizes that states should have a significant say in managing this part of the sea. Accordingly, it provides funding to states that voluntarily want to participate in managing these areas. 94 Two eligible states, Illinois and Alaska, do not participate in the CZMA program. 95 States' management is through their coastal management plans (CMPs) that they develop in line with guidelines contained in the CZMA.

⁸⁷ The Fish and Wildlife Service is an agency within the Department of the Interior.

^{**} Determination of Threatened Status for the Polar Bear (Ursus Maritimus) throughout its Range, Department of the Interior Fish and Wildlife Service (15 May 2008) 50 CFR Part 17, 73 Fed. Reg. 28212 at 29298.

⁸⁹ Ibid.

⁹⁰ 16 USCA §1451.

^{91 16} USCA §1452.

^{92 16} USCA \$1453.

⁹³ Submerged Lands Act, 43 USCA \$1312.

^{94 16} USCA \$1455.

⁹⁵ See Christie & Hildreth (*supra* note 6) at 61 and 62. See also NOAA Notice, '*Alaska Coastal Management Program Withdrawal From the National Coastal Management Program Under the Coastal Zone Management Act (CZMA)*' (7 July 2011) 76 FR 39857, FR Doc. 2011-16987; http://www.federalregister.gov/articles/2011/07/07/2011–16987/alaska-coastal-management-program-withdrawal-from-the-national-coastal-management-program-under-the.

⁹⁶ 16 USCA §1455(d)(2).

The CZMA lists certain issues that the CMPs must cover and the Secretary of Commerce must approve them.⁹⁷ The CZMA does not address whether the states should apply the precautionary approach or not. The states may determine their own approach. In what is known as the 'federal consistency doctrine', the CZMA mandates that "each federal agency within or outside the coastal zone that affects...the coastal zone...shall be consistent...with...the [s]tate management programs." The federal consistency doctrine is important because it gives the states the right, subject to some exceptions, to establish their own approaches to managing resources otherwise managed by the federal government. The states, then, can impose the precautionary approach on the federal government.

The CZMA works by giving states preemptive rights over federal actions that are inconsistent with their approved CMPs. 100 While on its face the CZMA appears to limit states' rights to only their waters, it covers federal actions in the territorial seas and EEZ that may affect a state's coastal zone, as well. States can use their preemptive rights to block activities that require federal licensing, for instance, to conduct offshore mineral exploration and development under the Outer Continental Shelf Lands Act. These are the rights that allow states to apply their own precautionary approaches in managing living marine resources. How they use the precautionary approach in enforcing those rights within the coastal zone and within the EEZ is discussed more fully below.

Many states in their implementation of CMPs utilize elements of precaution. In Rhode Island, for instance, there is an increasing awareness of the need for ecosystem-based management of ocean resources and fisheries management. In 2004, the Senate issued a report that suggested that ecosystem-based management should be incorporated into the management of Rhode Island's coastal zone. ¹⁰¹ Rhode Island's Ocean Special Area Management Plan (SAMP), issued in 2010, reinforced this, although tempered it with "economically beneficial" language. ¹⁰² In the SAMP, the Rhode Island Coastal Resources Management Council binds itself to the principles of ecosystem-

^{97 16} USCA \$1454.

^{98 16} USCA \$1456(c)(1)(A).

The CZMA does not require the states to adopt a precautionary approach either, so the states could adopt policies contrary to the precautionary approach.

^{100 16} USCA \$1456(c)(1)(a).

¹⁰¹ Report of the Committees on Government Oversight and Environment and Agriculture, 'A *Report to the Senate*' (26 February 2004); http://www.ci.uri.edu/GovComm/Documents/hbm.pdf.

Executive Summary 1 (19 October2010); http://www.crmc.ri.gov/samp_ocean/final approved/RI_Ocean_SAMP.pdf.

based management, adaptive management and best available science. ¹⁰³ However, the plan stops of short of adopting the precautionary approach and mandates that more research is necessary, but does not suggest that the environment be given the benefit of the doubt. ¹⁰⁴

In Massachusetts, the recently issued Massachusetts Ocean Management Plan¹⁰⁵ incorporates an ecosystem-based management system, ¹⁰⁶ as recommended by the state's Ocean Task Force. ¹⁰⁷

Presidential Executive Orders

A President of the US can issue Executive Orders. Executive Orders direct federal agencies in their enforcement and interpretation of laws. Recently, Presidents have used Executive Orders to incorporate precaution into agency decision-making. In one example, President Clinton used an Executive Order to establish the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve ("HICREF") under various environmental protection acts. ¹⁰⁸ In it, he specifically instructs the Secretary of Commerce to apply precaution in the management of the reserve. ¹⁰⁹ President George W. Bush subsequently established the Northwestern Hawaiian Islands Marine National Monument, which included the HICREF. ¹¹⁰ The Departments of Commerce and the Interior, along with the State of Hawaii and the Office of Hawaiian Affairs, jointly manage this monument, ¹¹¹ now called the Papahānaumokuākea Marine National Monument. ¹¹² The joint implementing regulations for the Monument were

¹⁰³ *Ibid.* at 7, 8.

¹⁰⁴ *Ibid*.

¹⁰⁵ To see all documents related to the Final Massachusetts Ocean Management Plan, see http://www.mass.gov/?pageID=eoeeaterminal&L=3&L0=Home&L1=Ocean+%26+Coastal+Management&L2=Massachusetts+Ocean+Plan&sid=Eoeea&b=terminalcontent&f=eea_oceans_mop&csid=Eoeea.

¹⁰⁶ Ibid., Chapter 1, at 1-3; http://www.env.state.ma.us/eea/mop/final-v1/v1-chap1.pdf.

¹⁰⁷ See Recommendation 2; http://www.mass.gov/czm/oceanmanagement/taskforce/pdf/tfrecommendations.pdf. For more details on the plan, see generally http://www.mass.gov/czm/oceanmanagement/.

¹⁰⁸ Executive Order 13178, Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve (2000) 65 Fed. Reg. 76, 903.

¹⁰⁹ *Ibid.* Section 4(b) reads: "The Reserve shall be managed using available science and applying a precautionary approach with resource protection favored when there is a lack of information regarding any given activity, to the extent not contrary to law."

¹¹⁰ Presidential Proclamation 8031 (14 June 2006) 71 FR 36443.

¹¹¹ Ibid. at 36444.

¹¹² Presidential Proclamation 8112 (6 March 2007) 72 FR 10031, amending Proclamation 8031.

promulgated on August 29, 2006.¹¹³ The guiding principles in managing the Monument include ecosystem-based and adaptive management, but also, and most importantly, the mandate to "err on the side of resource protection when there is uncertainty in available information on the impacts of an activity", which is clearly precautionary.¹¹⁴

President Obama has also used an Executive Order to incorporate precaution as an overriding policy. In 2009, he signed a Presidential Memorandum establishing an Interagency Ocean Policy Task Force. 115 The President charged the Task Force with developing a recommended framework for effective coastal and marine spatial planning. 116 The Task Force issued two interim reports for comments. 117 After reviewing and considering 5,000 comments, the Task Force issued its final report (Final Report). 118 The Final Report addresses the precautionary approach. 119

The Final Report sums up its recommendations in Appendix C. ¹²⁰ Appendix C acknowledges the precautionary approach, as defined in the Rio Declaration, Principle 15. It reaffirms that precaution is "essential for improved stewardship", but does not go as far as recommending the US adopt it as an overriding principle. ¹²¹ It is important that the Final Report also describes how the drafters would modify the precautionary approach. ¹²² They would strengthen it by placing the burden of proof on the proponents of a particular

¹¹³ 71 FR 51134, 50 CFR Part 404.

¹¹⁴ Papahānaumokuākea Marine National Monument Management Plan (December 2006) 106; http://www.papahanaumokuakea.gov/management/mp.html.

^{115 &#}x27;Presidential Memorandum on a National Policy for the Ocean, our Coasts, and the Great Lakes' (12 June 2009)2; http://www.whitehouse.gov/sites/default/files/page/files/2009ocean_mcm_rel.pdf. For a summary of the Presidential Memorandum, subsequent reports and the resulting Executive Order, see http://www.whitehouse.gov/administration/eop/ceq/initiatives/oceans.

¹¹⁶ Ibid. at 2.

^{117 &#}x27;Interim Report of the Interagency Ocean PolicyTask Force' (10 September 2009), http://www.whitehouse.gov/assets/documents/09_17_09_Interim_Report_of_Task_Force_FINAL2.pdf. 'Interim Framework for Effective Coastal and Marine Spatial Planning' (9 December 2009), http://www.whitehouse.gov/sites/default/files/microsites/091209_Interim-CMSP-Framework-Task-Force.pdf.

¹¹⁸ 'Final Recommendations of the Interagency Ocean Policy Task Force' (19 July 2010), http://www.whitehouse.gov/files/documents/OPTF_FinalRecs.pdf.

¹¹⁹ Ibid. at Appendix C-IV.

¹²⁰ Ibid.

¹²¹ Ibid.

¹²² *Ibid*.

activity to show "no appreciable risk of harm." ¹²³ They would weaken it by including a "cost-effective" requirement. ¹²⁴

President Obama issued Executive Order 13547 on 19 July 2010 adopting the recommendations of the Task Force as policy. 125 The Order also creates a new "National Ocean Council" to develop coastal and marine spatial plans based on the Final Report. 126 The impact this order will have on new legislation, agency actions, court decisions, etc., remains to be seen, but it seems that both the Secretary of Commerce and the Secretary of the Interior should now apply precaution in their decision-making, as a result of this Executive Order.

Precautionary Approach of States and Regional Groupings

Regional Fishery Management Councils' Adoption of Precaution: Northern Pacific, Western Pacific and New England

Some of the RFMCs have explicitly adopted the precautionary approach in their management of fisheries. ¹²⁷ The North Pacific Fishery Council (NPFC) seems to be the leader. ¹²⁸ In 2005, along with the Pacific Fishery Council, it conducted a panel to suggest improvements to their fishery management. ¹²⁹ The panel recognized that overfishing was occurring. ¹³⁰ But the panel blamed it on the RFMCs that "disregarded or downplayed valid scientific information when setting harvest guidelines." ¹³¹ The panel made two recommendations

¹²³ Ibid.

¹²⁴ Ibid.

¹²⁵ Executive Order 13547, Stewardship of the Ocean, Our Coasts, and the Great Lakes' (2010) 75 Fed. Reg. 43023\\$ 1; http://www.whitehouse.gov/the-press-office/executive-order-stewardship-ocean-our-coasts-and-great-lakes.

¹²⁶ Ibid.

Freestone (supra note 7) at 195.

See for example North Pacific Fishery Management Council, 'Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area' (October 2010); http://www.fakr.noaa.gov/npfmc/fmp/bsai/BSAI.pdf.

Strengthening Scientific Input and Ecosystem-Based Fishery Management for the Pacific and North Pacific Fishery Management Councils: Suggestions from a panel discussion (19–20 July 2005), Seattle, Washington; http://www.psmfc.org/files/Ecosystem-Final-Report.pdf; http://www.fakr.noaa.gov/npfmc/fmp/bsai/BSAI.pdf.

¹³⁰ *Ibid.* at 2 and 3, fn 1.

¹³¹ Ibid.

that were clearly precautionary. First, it recommended that the RFMCs strengthen the ecosystem-based approach in managing the fisheries. Second, it recommended that the RFMCs should set strategies that are "suitably precautionary." The NPFC followed up on these recommendations. It has now adopted an ecosystem-based approach, a precautionary approach and adaptive management in its FMPs. 134

In another recent example of this, in 2008, the NPFC issued its FMP for fishing in Arctic waters. ¹³⁵ The FMP prohibits commercial fishing in the Arctic for all species, other than Pacific Salmon and Pacific Halibut, until there is sufficient scientific information to establish a sustainable fishery plan. ¹³⁶ It is important that the FMP emphasizes the RFMC's incorporation of precaution as an important management policy. ¹³⁷ Perhaps even more importantly, Gary Locke, the Secretary of Commerce, in a press statement, supports the adoption of a precautionary approach as the way towards maintaining sustainable fisheries and protecting the overall health of fragile ecosystems. ¹³⁸ His statement might indicate that the Department of Commerce will adopt precautionary approaches more broadly than in the past.

Another RMFC that is increasingly incorporating precaution into the management of fisheries is the Western Pacific Regional Fishery Management Council (WPRFMC). As early as 2001, the WPRFMC applied precaution in meeting its requirements to identify essential fish habitat (EFH), as required by the 1996 amendments to the MSA. It felt that precaution was necessary so

¹³² Ibid. at 12-17.

¹³³ *Ibid.* at 21.

¹³⁴ See http://www.fakr.noaa.gov/npfmc/fmp/fmp.htm to access all of the NPFMC FMPs.

¹³⁵ North Pacific Fishery Management Council, 'Fishery Management Plan for Fish Resources of the Arctic Management Area' (August 2009) 4, 5; http://alaskafisheries.noaa.gov/npfmc/fmp/arctic/ArcticFMP.pdf.

¹³⁶ *Ibid.* at 4. The Department of Commerce approved the FMP. 50 CFR Part 679, 74 Fed. Reg. 56734 (3 November 2009); http://edocket.access.gpo.gov/2009/pdf/E9-26452.pdf.

¹³⁷ Ibid. at ES-2. President Obama has announced that he will nominate Gary Locke to be the US ambassador to China. Caren Bohan and Michael Martina, 'Gary Locke to be named new ambassador to China' Reuters (New York, 8 March 2011); http://www.reuters.com/article/2011/03/08/us-china-usa-locke-idUSTRE72672620110308. On 31 May 2011 President Obama nominated John E. Bryson to be the new Secretary of Commerce, 'Obama Nominates Bryson for Commerce Secretary' New York Times (New York, 31 May 2011); http://thecaucus.blogs.nytimes.com/2011/05/31/obama-to-name-bryson-commerce-secretary/.

¹³⁸ Allison Winter, 'U.S. Bans Commercial Fishing in Warming Arctic' New York Times, (New York, 21 August 2009); http://www.nytimes.com/gwire/2009/08/21/21greenwire-us-bans-commercial-fishing-in-warming-arctic-33236.html.

that "enough habitat was protected to sustain managed species."¹³⁹ Recently the WPRFMC announced that it was moving from species-based to ecosystem-based management as its principal approach to managing its fisheries.¹⁴⁰

Not all of the RMFCs have embraced precaution. The biggest laggard is perhaps the New England Fishery Management Council (NEFMC). Since the enactment of the MSA, it relied primarily on fishing quotas to manage its fisheries, which resulted in substantial declines in many of its groundfish fisheries. He NEFMC refused to adopt precautionary measures, and did not adequately protect vulnerable habitats. It did not even meet its requirements under the 1996 amendments to the MSA to designate essential fish habitats until 2004 with the adoption of Amendment 13. Commentators consider Amendment 13 to be too weak to protect EFHs. He NEFMC proposed stronger protection of EFHs as part of its EFH Omnibus provisions. These were expected to be implemented by 2008, but as of this writing (August 2011) they are still on hold.

Coastal Management Plan's Incorporation of the Precautionary Approach: Oregon

Oregon meets its obligation under the CZMA through the Oregon Coastal Management Program (the Oregon Program). ¹⁴⁷ The Oregon Program brings together the various Oregon state and local statutes that collectively make up its CMP. ¹⁴⁸ It also sets forth binding guidelines for land and water use planning in its 19 Statewide Planning Goals. ¹⁴⁹ Goal 19 gives a "higher priority to

Western Pacific Regional Fisheries Management Council, Fisheries Management Plan (2001) 180–181; http://www.wpcouncil.org/coralreef/Documents/FMP/Chapter6-8.pdf.

¹⁴⁰ See for instance the Western Pacific Regional Fisheries Management Council, Fishery Ecosystem Plan for the American Samoa Archipelago, at http://wpcouncil.org/fep/WPRFMC American Samoa FEP (2009-09-22).pdf.

¹⁴¹ Fleming and Crawford (supra note 42) at 43.

¹⁴² Ibid. at 45 and 70.

¹⁴³ Ibid. at 67, 68.

¹⁴⁴ The New England Fishery Management Council website: http://www.nefmc.org/nemulti/index.html.

¹⁴⁵ Ibid. at 45.

¹⁴⁶ *Ibid.* See note 144 for a complete discussion of the status of the EFH Omnibus Amendment.

See the program's homepage at http://www.oregon.gov/LCD/OCMP/index.shtml.

¹⁴⁸ ORS 196.425.

¹⁴⁹ Oregon Coastal Management Plan Overview, http://www.oregon.gov/LCD/OCMP/OCMP_Intro.shtml.

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the protection of renewable marine resources—i.e., living marine organisms than to the development of non-renewable ocean resources."150 Goal 19 also specifically permits the precautionary approach: "management measures may include...a precautionary approach to decisions about marine resources and uses when information is limited."151 Oregon's primary CZMA document, 152 the Territorial Sea Plan, specifically incorporates the precautionary principle. 153 As discussed above, under the CZMA, federal actions must be consistent with the Territorial Sea Plan, giving Oregon the opportunity to apply precaution in decisions regarding marine resources off its coast.

How the CZMA Can Be Used to Enforce a State's Precautionary Approach: California

California meets its obligations under the CZMA through the California Coastal Management Program (the California Program), administered by the California Coastal Commission (the California Commission). 154 The California Program does not seem to expressly incorporate precaution into its overall policy. However, California used precautionary concepts to challenge the Navy's 2007 testing of and training with sonar equipment, this time midfrequency sonar. 155 The plaintiffs in this case, like in the earlier, factually similar, case (discussed infra) used precautionary arguments, but this time under the CZMA, rather than the MMPA. The impact on marine mammals of using mid-frequency sonar was uncertain, meaning that California interpreted its program to be precautionary. 156 In its consistency determination submitted to the California Commission, the Navy said it was consistent with the California Program. 157 The Commission disagreed and would permit further testing and training only if the Navy met 12 conditions that imposed limitations on the use of the mid-frequency sonar to minimize the impact on marine animals

¹⁵⁰ Oregon's Statewide Planning Goals & Guidelines, Goal 19: Ocean Resources, OAR 660-015-0010(4) 1; http://www.oregon.gov/LCD/docs/goals/goal19.pdf, as authorized by ORS. \$196.405 et seq.; http://www.oregon.gov/LCD/OCMP/docs/Ocean/ORS_196-405.pdf.

¹⁵¹ Ibid. Implementation Requirement 2(g).

¹⁵² ORS 196.425(4).

¹⁵³ California Coastal Management Plan, Part 1G, Policy 3(A)(9); http://www.oregon.gov/ LCD/OCMP/docs/Ocean/otsp_1-g.pdf.

¹⁵⁴ See the Commission's homepage at http://www.coastal.ca.gov/index.html.

¹⁵⁵ California Coastal Commission v. United States Department of the Navy, Secretary of the Navy (2007) Case No. CV 07-01899; http://www.coastal.ca.gov/fedcd/sonar/ccc-v-navy-2-22-2007 .pdf.

¹⁵⁶ *Ibid*.

¹⁵⁷ Ibid.

in the training area.¹⁵⁸ The Navy replied that it would not comply with the conditions, as it believed its activities were consistent with the California management program to the "extent practicable."¹⁵⁹

The California Commission filed suit for a permanent injunction against the US Navy under the CZMA to comply with the 12 conditions before conducting additional training or testing. Although California did not specifically invoke precaution in setting the conditions, it based its arguments on unspecified needs arising from "special protection" and maintenance of "healthy populations" and the "possibility" of harm to marine animals. If The district court granted a summary judgment in favor of California, granting preliminary and permanent injunctive relief, prohibiting the Navy from continuing the training and testing.

After various procedural changes and various hearings, the 9th Circuit court upheld the injunctive relief on precautionary grounds. The court stated that the plaintiffs had shown the "possibility" of irreparable injury to marine animals, which was sufficient for them to prevail, a precautionary conclusion.¹⁶³

The US Supreme Court eventually reversed the 9th Circuit and allowed the Navy to continue with its testing and training on two grounds. ¹⁶⁴ First, the Court held that any possible injury caused by the training and testing "is outweighed by the public interest and the Navy's interest in effective, realistic training of its sailors." ¹⁶⁵ Second, the Supreme Court held that in granting summary judgment the 9th Circuit court erred when it said that a "possibility" of irreparable harm was sufficient to hold for the state of California. ¹⁶⁶ It held that the 9th Circuit court should have applied the correct summary judgment standard of "likely" to suffer irreparable harm. ¹⁶⁷ It did not rule on whether a "possibility" would be sufficient at a trial on the merits. Clearly then, for the Supreme Court, national security can trump precautionary approaches to protect the environment. But the Supreme Court in this case

¹⁵⁸ *Ibid*. at 5, 6.

¹⁵⁹ *Ibid.* at 3. Part of the Navy's reasoning was that there was no scientific evidence showing a permanent impact on marine mammal species. See Letter from the Department of the Navy to Mr. Peter Douglas, Executive Director of the California Coastal Commission, dated February 12, 2007, http://www.coastal.ca.gov/fedcd/sonar/navy-response-sonar-3-22-2007.pdf.

¹⁶⁰ California Coastal Commission (supra note 155) at 10.

¹⁶¹ *Ibid*.

¹⁶² Ibid. at 12.

¹⁶³ Natural Resources Defense Council, Inc v. Winter (2008) 518 F 3d 658, 696.

Winter v. Natural Resources Defense Council, Inc., (2008) 129 SCt 365, 382.

¹⁶⁵ *Ibid*.

¹⁶⁶ Ibid. at 375.

¹⁶⁷ Ibid.

did not generally prohibit states from using precautionary approaches in their decision-making under the CZMA in other situations.

State Courts' Use of the Precautionary Approach: Hawaii

Hawaii is at the forefront of states in applying the precautionary approach in environmental matters. Its Constitution specifically requires the state to conserve natural resources "for the benefit of present and future generations." 168 The Hawaii Supreme Court has specifically read into this language the requirement to use precaution. In In Re Water Use Permit Applications, the court specifically addressed the Water Resource Management Commission's (the "Commission") use of precautionary approach in its permitting activities. 169 The dispute dealt with irrigation permits and the Commission's decision to require a "buffer zone" between the proposed activities and the protected body of water. The Hawaii Supreme Court held that the Hawaii Constitution imposes a duty on the Commission, under its public trustee responsibilities, to "take the initiative in considering, protecting, and advancing public rights in the resource [water resources]."170 The Supreme Court went further and stated that "the lack of full scientific certainty does not extinguish the presumption in favor of public trust purposes or vitiate the Commission's affirmative duty to protect such purposes wherever feasible."171 So, the Hawaiian Supreme Court ruling suggests that its Constitution requires Hawaii to apply precautionary approaches in preserving its water resources.

Using the Precautionary Approach to Protect the Great Lakes

In 2005, the US states and the Canadian provinces bordering on the Great Lakes entered into an agreement "to act together to protect, conserve and restore the Waters of the Great Lakes—St. Lawrence River Basin" (the "Agreement"). The Agreement, although not legally binding under the two countries' respective Constitutions, did commit the states and the provinces

The Constitution of the State of Hawaii, Article XI, §1; http://hawaii.gov/lrb/con/.

¹⁶⁹ In Re Water Use Permit Applications (2000) 9 P3d 409 Hawai'i.

¹⁷⁰ Ibid. at 455.

¹⁷¹ *Ibid.* at 467.

¹⁷² Great Lakes—St. Lawrence River Basin Sustainable Water Resources Agreement (2005); http://www.cglg.org/projects/water/docs/12-13-05/Great_Lakes-St_Lawrence_River_Basin_ Sustainable_Water_Resources_Agreement.pdf. See generally the Great Lakes—St. Lawrence River Water Resources General Body's homepage: http://www.glslregionalbody.org/index.aspx.

to enact binding local legislation in line with the agreement.¹⁷³ On the same date, the Governors of the US states also entered into the "Great Lakes—St. Lawrence River Basin Water Resources Compact" (the "Compact").¹⁷⁴ The Compact incorporates the wording found in the agreement. Subsequently, Congress and the President approved the Compact, as required by the Constitution.¹⁷⁵ And the states incorporated the principles into their local legislation.¹⁷⁶ Amongst other things, the Agreement aims to prohibit new or increased diversion of waters within the Great Lakes and St. Lawrence River basin.¹⁷⁷

The Agreement specifically incorporates the precautionary principle, in line with Rio Declaration 15. The Preamble reads: "Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation." The Agreement reiterates this language in its Objectives. While not directly related to the management of living resources, the Agreement is evidence of a trend amongst state governments to apply the precautionary principle to the management of natural resources, in spite of the US Congress's reluctance to do so.

Conclusion

Although the US has not incorporated precaution into its rules governing living marine resources as an overriding principle, it uses a precautionary approach in applying its rules. US agencies have embedded precautionary approaches into their decision-making and policies. US courts have upheld the application of precautionary approaches. States have been willing to apply precautionary approaches in managing living marine resources to the extent that they control the seas. Undoubtedly, commentators will be dissatisfied with the limited extent of the US application of precautionary approaches.

¹⁷³ US Constitution Art. I(10) prohibits states entering into binding agreements with each other without Congressional approval.

¹⁷⁴ Great Lakes—St. Lawrence River Basin Water Resources Compact (2005). http://www.glslregionalbody.org/Docs/Agreements/Great_Lakes-St_Lawrence_River_Basin_Water_Resources_Compact.pdf.

¹⁷⁵ Public Law No: 110-342 (3 October 2008); http://www.gpo.gov/fdsys/pkg/PLAW-110publ342/pdf/PLAW-110publ342.pdf.

¹⁷⁶ See for example, Illinois Public Act 095-0238 \$1.3.2(a); http://www.ilga.gov/legislation/publicacts/95/PDF/095-0238.pdf.

¹⁷⁷ The Agreement (supra note 147).

¹⁷⁸ Ibid. at 2.

¹⁷⁹ *Ibid.* at Art 100.1.a.

Perhaps the US should use the precautionary approach as an overriding principle in setting national environmental policies. But with today's Congress that is unlikely. Nevertheless, there still seem to be some grounds for optimism, as many of the decision-makers increasingly accept precautionary approaches in their day-to-day management of the US living marine resources.