

COMMENTS

A Less Tragic Commons?: Using Harvester and Processor Quotas to Address Crab Overfishing

*Avi Brisman**

I. INTRODUCTION

Many of the Bering Sea/Aleutian Islands (BSAI) crab fisheries are in serious decline or have collapsed. In order to prevent a tragedy of the commons,¹ the North Pacific Fishery Management Council (“NPFMC” or the “Council”),² which is responsible for fishery management in the Gulf of Alaska under the Magnuson-Stevens Fishery Conservation and Management Act³ (the “Magnuson Act” or the “Act”), has recently adopted a preferred alternative⁴ for rationalization

* J.D., University of Connecticut School of Law, 2003; M.F.A., Pratt Institute, 2000; B.A., Oberlin College, 1997. The author would like to thank Janis Searles, for encouraging him to write on this topic, and Kurt Strasser, Phillip I. Blumberg Professor of Law, University of Connecticut School of Law, for his advice and comments on earlier versions of this Comment.

1. Garrett Hardin, *The Tragedy of the Commons*, 162 SCI. 1243 (1968), reprinted in ROGER W. FINDLEY & DANIEL A. FARBER, CASES AND MATERIALS ON ENVIRONMENTAL LAW 42 (5th ed. 1999). Hardin described the “tragedy of the commons” as a pasture open to all, where each herdsman is free to graze his cattle. This arrangement will work as long as the number of grazing cattle does not exceed the carrying capacity of the land. But inevitably, each herdsman will want to add cattle to his herd in order to maximize his profit. Despite the fact that each herdsman knows that adding cattle beyond the carrying capacity will diminish the resource, he will do it because he alone stands to benefit from the profit, whereas the cost—the damage to the resource—will be borne by everyone. Eventually, everyone will add more animals to their respective herds, which will lead to overgrazing and will culminate in the destruction of the resource. The tragedy is that “[e]ach man is locked into a system that compels him to increase his herd without limit in a world that is limited. Ruin is the destination toward which all men, rush, each pursuing his own best interest in a society that believes in the freedom of the commons.” *Id.* Hardin concludes that “[f]reedom in the commons brings ruin to all.” *Id.*

2. For a list of acronyms used throughout this Comment, see Appendix A.

3. 16 U.S.C. § 1852(a)(1)(G) (1996).

4. The phrase preferred alternative may be somewhat misleading. The specific rationalization program—the three-pie voluntary cooperative program—that NPFMC identified as its pre-

that would replace the existing License Limitation Program (LLP) for several BSAI crab fisheries.^{5,6}

The preferred alternative is a “three-pie voluntary cooperative program,” which attempts to protect the interests of harvesters (crab fishermen), processors (corporations who collect the crabs from the harvesters and prepare them for market), and designated regions that have a historic interest in the crab fisheries.⁷ Under the three-pie voluntary cooperative program, harvesters would be allocated a certain percentage of the total allowable catch (TAC) of a specific crab fishery. In other words, each harvester would be allowed to catch up to a certain amount, measured in pounds, of the total number of crabs that could be caught in any given year. This allocation would come in the form of an individual fishing quota (IFQ).⁸

Processors, in turn, would be guaranteed that they would receive a certain percentage of the total crabs caught.⁹ These processing privileges—known as individual processing quotas (IPQs)—would mean that harvesters possessing IFQs would be required to sell their crabs to certain processors (those holding IPQs), but could not sell to any

ferred alternative, is the program NPFMC liked best of the approaches it considered for the fisheries under its jurisdiction. The three-pie voluntary cooperative program is not necessarily the option NPFMC would have selected in the absence of a Congressional directive to determine the need for rationalization. See *infra* Part II.

5. Bering Sea *C. opilio* (snow crab), Bristol Bay red king crab, West Aleutian Islands (Adak) golden king crab (brown crab), Eastern Aleutian Islands (Dutch Harbor) golden king crab (brown crab), Western Aleutian Islands (Adak) red king crab, Bering Sea *C. bairdi* (Tanner crab), Pribilof Island red and blue king crab, St. Matthew blue king crab.

6. NPFMC adopted its “preferred alternative for rationalization” in June 2002. North Pacific Fishery Management Council, *Bering Sea Crab Rationalization Program Alternatives: Public Review Draft* (May 2002) (on file with author) [hereinafter BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES] (on file with author). NPFMC submitted a summary of its BSAI crab rationalization program to Congress on August 5, 2002, North Pacific Fishery Management Council, Summary of the North Pacific Fishery Management Council’s Bering Sea and Aleutian Islands Crab Rationalization Program Submitted to the United States Congress, August 2002 5 (Aug. 5, 2002), <http://www.fakr.noaa.gov/npfmc/Committees/Crab/BSAICrab%20report%20to%20congress802.pdf> (last visited Oct. 29, 2002) [hereinafter REPORT TO CONGRESS]. Essentially, the BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES and the REPORT TO CONGRESS are the same documents. The REPORT TO CONGRESS is a twenty-three page document summarizing the more than 700-page BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES. This Comment will cite to either or both of these sources.

7. REPORT TO CONGRESS, *supra* note 6, at 2.

8. *Id.* at 6. The Magnuson Act defines an IFQ as “a Federal permit under a limited access system to harvest a quantity of fish, expressed by a unit or units representing a percentage of the total allowable catch of a fishery that may be received or held for exclusive use by a person.” 16 U.S.C. § 1802(21) (1996). Individual fishing quotas which are transferable, *i.e.*, quotas which can be leased or sold to other harvesters, are referred to as “individual transferable quotas” (ITQs). The terms IFQ and ITQ are used interchangeably throughout this Comment.

9. REPORT TO CONGRESS, *supra* note 6, at 12.

processor who had already met its quota limit.¹⁰ Finally, the Council included a regionalization program as part of its preferred alternative in order to “protect communities from the disruption of the current pattern of landings and processing that might be caused by changing the management of the BSAI crab fisheries”¹¹ Under the regionalization program, certain regions would be guaranteed that processors “would be required to accept delivery of and process crab in the designated region.”¹²

Up until October 1, 2002, there was a moratorium on all new IFQ programs.¹³ Although the moratorium expired on October 1, 2002, no new IFQ program can be put into place without approval from the Secretary of Commerce.¹⁴ At the time of this Comment, there is still debate over whether the moratorium should be extended.¹⁵ The most controversial aspect surrounding the reauthoriza-

10. *See id.*

11. *Id.* at 18.

12. *Id.* For most of the crab fisheries covered in the preferred alternative, there would be two regional designations. The North Region would encompass all areas on the Bering Sea north of 56° 20' N. Latitude. The South Region would encompass all areas not included in the North Region. *Id.*

13. “A Council may not submit and the Secretary may not approve or implement before October 1, 2002, any fishery management plan, plan amendment, or regulation under this Act which creates a new individual fishing quota program.” 16 U.S.C. § 1853(d)(1)(A) (2002).

14. “[A]n IFQ program that included provisions to grant processing quota shares to processors would require an amendment to the MSA prior to approval by the Secretary of Commerce. Similarly, a cooperative program that grants an interest in a fishery to harvesters and/or processors that are akin to harvester and processor shares would require approval by Congress.” BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 34.

15. For example, the Alaska Marine Conservation Council advocates that stronger standards need to be in place to ensure that conservation is enhanced before any new IFQ programs are allowed. *See* Press Release, Alaska Marine Conservation Council, House Committee Cripples Fisheries Conservation Law and Hands Over the Public’s Resource to Large Corporations, <http://www.akmarine.org/pressmsa.pdf> (last visited July 22, 2002) [hereinafter AMCC PRESS RELEASE]; Alaska Marine Conservation Council, *An Open Letter to Senator Stevens, Senator Murkowski and Congressman Young*, at <http://www.akmarine.org/letter2.pdf> (last visited July 22, 2002). The Marine Fish Conservation Network—a coalition of more than one-hundred environmental organizations and commercial and recreational fishing associations—“believes that the IFQ moratorium should be extended, unless and until Congress adopts legislation containing national standards for the design and conduct of IFQ programs in order to ensure that these programs contribute to and enhance the conservation and management of our nation’s marine fisheries.” The Marine Fish Conservation Network, *Summary of the Marine Fish Conservation Network’s Proposed National Standards for Individual Fishing Quota Programs*, http://www.conservfish.org/capitol_hill/summary_ifq.html (last visited July 23, 2002). Environmental Defense, a national, non-profit environmental law and policy organization, would also like to see any legislation reauthorizing the Magnuson Act to include “standards to help councils design IFQ programs that are equitable and consistent with community and conservation interests.” Environmental Defense, however, still supports lifting the moratorium in the absence of any such standards. News Release, Environmental Defense, House Moves Closer to Ending Ban on New Fishing Quotas (July 10, 2002), <http://www.environmentaldefense.org/pressrelease.cfm?ContentID=2178> (last visited July 22, 2002).

tion of the Act concerns the inclusion of processors' shares as part of an individual quota system.¹⁶

Since IPQs are unprecedented in the United States,¹⁷ this Comment will first discuss some of the legal issues concerning IPQs and will then consider the benefits and costs of crab rationalization. This Comment argues that although NPFMC's three-pie voluntary cooperative program will likely benefit processors at the expense of harvesters, this trade-off is necessary to protect the economic stability of coastal fishing communities. This Comment concludes, however, that NPFMC's three-pie voluntary cooperative program should be regarded as only one of the steps necessary to protect the crab fisheries from depletion.

Part II of this Comment provides a brief overview of the history of the Magnuson Act. Part III describes the current status of the BSAI crab fisheries and the need for crab rationalization. In Part IV, this Comment examines NPFMC's preferred alternative—the three-pie voluntary cooperative program—as set forth in its Bering Sea Crab Rationalization Program Alternatives: Public Review Draft (May,

Many scientists are also wary of fishing quotas as a means of conserving fishery resources. See Interview with Ginny Eckert, Ph.D., Assistant Professor of Biology, University of Alaska Southeast, Juneau campus, in Juneau, Alaska (July 10, 2002) (on file with author) [hereinafter INTERVIEW WITH GINNY ECKERT]; National Center for Ecological Analysis and Synthesis, *Scientific Consensus Statement on Marine Reserves and Marine Protected Areas 2*, <http://www.nceas.ucsb.edu/Consensus/consensus.pdf> (last visited July 10, 2002) (stating that marine reserves—"areas of the sea completely protected from all extractive activities"—are an effective way to cope with the problems of exploited species and to improve marine biodiversity and the overall health of the oceans). See also Testimony Before the House Subcomm. on Fisheries Conservation, Wildlife and Oceans (2002) (statement of Dr. Daniel W. Bromley, Anderson-Bascom Professor of Applied Economics, University of Wisconsin-Madison), at <http://resourcescommittee.house.gov/107cong/fisheries/2002feb13/bromley.htm> (last visited Mar. 27, 2003) (arguing that IFQs can be a prudent management tool for particular fisheries only "[i]f there is assurance that harvest levels will not drive stocks to economic or biological extinction."); SETH MACINKO & DAVID BROMLEY, WHO OWNS AMERICA'S FISHERIES? 21 (2002) (arguing that "an IFQ permit is not a sufficient policy instrument to prevent overfishing. . . . [t]here is little reason to believe that behavior in IFQ fisheries will differ from the behavior in all other fisheries with regard to long-term protection of the resource.").

16. Although it is outside the scope of this Comment, "[t]he reauthorization debate could also provide an opportune moment to begin thinking about ways to consolidate the many federal agencies scattered across the bureaucratic landscape that deal with ocean issues." *Oceans in Trouble*, N.Y. TIMES, Jan. 19, 2003, at § 4, 1. For more on America's need to reorganize the management of its oceans, see *Oceans in Peril*, N.Y. TIMES, May 27, 2003, at A24; Andrew C. Revkin, *U.S. is Urged to Overhaul its Approach to Protecting Oceans*, N.Y. TIMES, June 5, 2003, at A32.

17. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 396 ("no two pie IFQ programs have been implemented in any fisheries to date."). See also Alaska Marine Conservation Council, *Limited Access, available at* <http://www.akmarine.org/newlimitedaccess.html> (last visited January 10, 2003) (describing NPFMC's proposal as "unprecedented.") [hereinafter AMCC LIMITED ACCESS].

2002) and Summary of the North Pacific Fishery Management Council's Bering Sea and Aleutian Islands Crab Rationalization Program Submitted to the United States Congress, August, 2002. Part V looks at the legal issues surrounding processor quotas, focusing specifically on the possible equal protection, takings, and antitrust concerns that a processor quota system raises. After concluding that NPFMC's IPQ program should withstand any legal challenges, this Comment, in Part VI, examines the benefits and costs of rationalization to harvesters, processors, consumers, and the environment. Although NPFMC's three-pie voluntary cooperative program will likely benefit processors at the expense of harvesters, this Comment, in Part VII, argues that this trade-off is necessary in order to protect the economic stability of coastal fishing communities. Finally, this Comment concludes that as an environmental mechanism for ensuring the sustainability of the crab fisheries, NPFMC's three-pie voluntary cooperative program should be regarded as a step, but not the final step, towards that goal.

II. HISTORY OF THE MAGNUSON ACT

In 1976, Congress passed the Fishery Conservation and Management Act,¹⁸ in order "to assert U.S. federal authority over non-U.S.-flagged vessels operating within a zone extending 200 nautical miles from the U.S. coastline, coincident with ongoing negotiations of the UN Convention on the Law of the Sea for the same extension of jurisdiction for all coastal nations."¹⁹ In essence, the Act reflected Congress's belief that "coastal fish stocks would suffer from the tragedy of the commons unless the tragedy was averted through the declaration of national sovereignty, an assertion of exclusive property rights at the national level."²⁰ The Act also established eight Regional Fishery Management Councils²¹ ("Regional Councils" or "Councils") to develop, administer, and revise fishery management plans ("FMPs")—plans which regulate fishing for the species in the Coun-

18. It was renamed as the Magnuson Fishery Conservation and Management Act in 1980 and as the Magnuson-Stevens Fishery Conservation and Management Act in 1996.

19. COMM. TO REVIEW INDIVIDUAL FISHING QUOTAS, OCEAN STUDIES BOARD, COMM'N ON GEOSCIENCES, ENV'T, & RES., NAT'L RESEARCH COUNCIL, SHARING THE FISH: TOWARD A NATIONAL POLICY ON INDIVIDUAL FISHING QUOTAS 15 (1999), <http://bob.nap.edu/books/0309063302/html/> (last visited May 2, 2003) [hereinafter SHARING THE FISH]. Before the Act created the Exclusive Economic Zone (EEZ), foreign vessels were allowed to fish waters beyond the twelve-mile territorial limit.

20. Alison Rieser, *Prescriptions for the Commons: Environmental Scholarship and the Fishing Quotas Debate*, 23 HARV. ENVTL. L. REV. 393, 406 (1999).

21. 16 U.S.C. § 1852(a)(1)–(8) (1996). NPFMC is one of these eight Regional Fishery Management Councils.

cils' respective geographical jurisdictions in order to prevent overfishing and achieve "optimum yield."²²

Initially, the Councils attempted to control fishing pressure using traditional forms of fishery management authorized under the Act, such as closed areas, closed seasons, size limits, trip limits, crew limits, and gear limits.²³ During the 1990–96 period, however, in response to the international trend in fisheries management, the policy regarding the protection of fish stocks shifted from an emphasis on open access to fisheries to a focus on limited access fishing licenses, such as individual transferable quotas (ITQs). By late 1996, the Regional Councils had adopted ITQs for three fisheries: the Atlantic surf clam and ocean quahog fishery, the Alaska halibut and sablefish fixed gear fishery, and the South Atlantic wreckfish fishery.²⁴ Many Alaskan fishermen, however, "feared that the adoption of [new] ITQs would place them at a disadvantage with respect to a larger offshore trawler based in Washington,"²⁵ who would bid up the prices and purchase quota shares.²⁶ Thus, despite the success of ITQs in helping to deal with overcapitalization,²⁷ the 1996 Sustainable Fisheries Act, which reauthorized the Magnuson Act, imposed a moratorium on all new ITQs

22. 16 U.S.C. § 1851(a)(1) (1996). Once a Council adopts an FMP or amendment to an existing FMP, which must be consistent with several National Standards enumerated by the Act, 16 U.S.C. § 1851, the FMP or amendment is submitted along with proposed implementing regulations to the Secretary of Commerce for review. 16 U.S.C. § 1853(c) (1996). If the Secretary finds that the FMP or amendment is consistent with the National Standards and other applicable law, the Secretary then promulgates the regulations. 16 U.S.C. § 1853(c) (1996).

According to the Act:

[t]he term 'optimum,' with respect to the yield from a fishery, means the amount of fish which—

(A) will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems;

(B) is prescribed as such on the basis of the maximum sustainable yield from the fishery, as reduced by any relevant economic, social, or ecological factor; and

(C) in the case of an overfished fishery, provides for rebuilding to a level consistent with producing the maximum sustainable yield in such fishery.

16 U.S.C. § 1802(28) (1996).

23. See 16 U.S.C. § 1853 (1996).

24. See Rieser, *supra* note 20, at 408; Alison Reiser, *Property Rights and Ecosystem Management in U.S. Fisheries: Contracting for the Commons?*, 24 *ECOLOGY L.Q.* 813, 822 (1997).

25. David A. Dana, *Overcoming the Political Tragedy of the Commons: Lessons Learned from the Reauthorization of the Magnuson Act*, 24 *ECOLOGY L.Q.* 833, 845 (1997).

26. *Id.*; see also Shi-Ling Hsu & James E. Wilen, *Ecosystem Management and the 1996 Sustainable Fisheries Act*, 24 *ECOLOGY L.Q.* 799, 808 (1997).

27. See Rieser, *supra* note 20, at 412–14 (discussing the Alaskan halibut and sablefish fisheries). In addition to conserving fishery resources, ITQs have also proven to be economically efficient. ITQs reduce the incentive for fishermen to purchase bigger boats and more equipment and to fish during unsafe conditions. SHARING THE FISH, *supra* note 19, at 4.

until October 1, 2000.²⁸ In December 2000, the Consolidated Appropriations Act of 2001 extended the moratorium until October 1, 2002.²⁹ The Consolidated Appropriations Act of 2001 also included an express directive to the North Pacific Fishery Management Council (NPFMC) to “examine fisheries under its jurisdiction to determine whether rationalization is needed and provide an analysis of several specific approaches to rationalization.”³⁰ (This analysis is the Bering

28. 16 U.S.C. § 1853(d)(1)(A) (1996). Alaska Senator Ted Stevens was the driving force behind the moratorium and used his political clout to hold up reauthorization of the Magnuson Act until a moratorium on the adoption by any fishery council of any new ITQ program was added to the Sustainable Fisheries Act.

Note, however, that not all fishermen were in favor of the moratorium. “[B]ecause [ITQ] programs create a valuable property right that can be sold by those choosing to sell out, substantial numbers of fishermen . . . support [ITQs]. Some fishermen have also supported [ITQs] because they see them as the only way to manage fisheries effectively and avoid the inevitable growth in fishing capacity that occurs under open access.” Hsu & Wilen, *supra* note 26, at 809. For a thorough analysis of the advantages and disadvantages of ITQ programs, see Eugene H. Buck, *available at Individual Transferable Quotas in Fishery Management*, CRS Report #95-849, <http://cnie.org/NLE/CRSreports/Marine/mar-1.cfm> (last visited June 20, 2002) (discussing the pros and cons of ITQS with respect to capitalization and consolidation; conservation; seafood market and price; safety; enforcement and administration; employment and community stability; and equity and wealth creation). See also Richard B. Allen, *Transferable Fishing Rights are Best for Fish and Fishermen*, National Fisheries Conservation Center, *available at* http://www.nfcc-fisheries.com/ir_pov_c19.html (last visited June 20, 2002); John Bundy, *Lessons from the CDQ Program for Quota-Based Management*, National Fisheries Conservation Center, *available at* http://www.nfcc-fisheries.com/ir_pov_c22.html (last visited June 20, 2002); Penelope D. Dalton, *National Marine Fisheries Position on Individual Fishing Quotas*, National Fisheries Conservation Center, *available at* http://www.nfcc-fisheries.com/ir_pov_c16.html (last visited June 20, 2002); Dave Fraser, *The Benefits of Rights-Based Fishing Cooperatives in the Pollock Fishery*, National Fisheries Conservation Center, http://www.nfcc-fisheries.com/ir_pov_c10.html (last visited June 20, 2002); Rod Fujita, *The Moratorium on Individual Transferable Quotas Should be Lifted*, National Fisheries Conservation Center, *available at* http://www.nfcc-fisheries.com/ir_pov_c14.html (last visited June 20, 2002); Mike Hagler, *Some Greenpeace Views on ITQs*, National Fisheries Conservation Center, *available at* http://www.nfcc-fisheries.com/ir_pov_c15.html (last visited June 20, 2002); Rod Moore, *Sharing the Costs and Benefits*, National Fisheries Conservation Center, *available at* http://www.nfcc-fisheries.com/ir_pov_c21.html (last visited June 20, 2002); Paul W. Parker, *Privatization Didn't Work for Rangelands and It Won't Work for New England Fisheries*, National Fisheries Conservation Center, *available at* http://www.nfcc-fisheries.com/ir_pov_c18.html (last visited June 20, 2002); Jeff Pike, *Quota-Based Programs*, National Fisheries Conservation Center, *available at* http://www.nfcc-fisheries.com/ir_pov_c20.html (last visited June 20, 2002); Carl Safina, *Individual Fishery Quotas: Allocation, Conservation, or Both?*, National Fisheries Conservation Center, *available at* http://www.nfcc-fisheries.com/ir_pov_c13.html (last visited June 20, 2002); Beth Stewart, *Style or Substance?*, National Fisheries Conservation Center, *available at* http://www.nfcc-fisheries.com/ir_pov_c08.html (last visited June 20, 2002); Bob Storrs, *Unalaska Locals are Wary of ITQs*, National Fisheries Conservation Center, *available at* http://www.nfcc-fisheries.com/ir_pov_c11.html (last visited June 20, 2002); Mike Weber, *Obstacles to ITQs*, National Fisheries Conservation Center, *available at* http://www.nfcc-fisheries.com/ir_pov_c23.html (last visited June 20, 2002).

29. Consolidated Appropriations Act of 2001, Pub. L. No. 106-554, 114 Stat. 2763.

30. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at

34. The specific legislative language is:

Sea Crab Rationalization Program Alternatives: Public Review Draft and the subsequent Summary of the North Pacific Fishery Management Council's Bering Sea and Aleutian Islands Crab Rationalization Program Submitted to the United States Congress, August 2002.)³¹

The North Pacific Fishery Management Council shall examine the fisheries under its jurisdiction, particularly the Gulf of Alaska groundfish and Bering Sea crab fisheries, to determine whether rationalization is needed. In particular, the North Pacific Council shall analyze individual fishing quotas, processor quotas, cooperatives, and quotas held by communities. The analysis should include an economic analysis of the impact of all options on communities and processors as well as the fishing fleets. The North Pacific Council shall present its analysis to the appropriations and authorizing committees of the Senate and House of Representatives in a timely manner.

Id.

31. The National Ocean and Atmospheric Association General Counsel (NOAA GC) clarified the scope of the analysis required by Congress:

[T]he statute language require[s] the Council to analyze the rationalization options identified (i.e., individual fishing quotas, processor quotas, cooperatives, and quotas held by communities) and [does] not appear to give the Council any discretion to exclude any of the options from the analysis. Furthermore, . . . each option needs to be considered on an equal analytical footing. Finally, . . . the Council could prepare a threshold comparative analysis of the different options that considered the impact of the options on the communities, processors and the fishing fleets but that analysis did not need to consider all details required for Council adoption and Secretary of Commerce approval of a rationalization program.

Id. The other rationalization alternatives which the Council considered included "an IFQ program that would allocate harvest shares only, a two pie IFQ program that would allocate harvester shares and processing shares, and several cooperative programs that would allocate shares to harvesters with different levels of delivery commitments from harvesters to processors." REPORT TO CONGRESS, *supra* note 6, at 3. The Council determined, however, that "each of these other alternatives would inadequately protect the interests of historic dependents on the fisheries, neglecting either the interests of an entire group or an identifiable segment of a group."

Id. This Comment will not discuss these rationalization options which the Council considered. For an in-depth description of alternatives for rationalization and the elements and options for analysis, see BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 10-33. In addition, this Comment will not make an economic comparison of one-pie IFQ programs, where quota shares are issued only to the harvesting sector, and two-pie IFQ programs, where separate pools of quota shares are allocated to the harvesting sector and the processing sector. For a discussion of the economic effects of harvester-only IFQs as compared to the two-pie approach, see *Hearing on Individual Fishing Quotas Before House Subcomm. on Fisheries Conservation, Wildlife, and Oceans, Comm. of Resources* (2002) (statement of proposed testimony of Robert Halvorsen, Professor of Economics, Dep't of Economics, University of Washington, on behalf of the Crab Rationalization and Buyback Group), <http://resourcescommittee.house.gov/107cong/fisheries/2002feb13/halvorsen.htm> (last visited January 5, 2003) (recommending that "national standards for fishery conservation and management not require that IPQs or other specific compensation mechanisms be included in future fishery management plans and regulations); *Hearing on Individual Fishing Quotas Before House Subcomm. on Fisheries Conservation, Wildlife, and Oceans, Comm. of Resources* (2002) (statement of Scott C. Matulich, Professor, Dep't of Agricultural Economics, Washington State University), available at <http://resourcescommittee.house.gov/107cong/fisheries/2002feb13/matulich.htm> (last visited January 5, 2003) (stating that "a quota allocation only to harvesters damages co-dependent processors"); Scott C. Matulich et al., *Reconsidering the Initial Allocation of ITQs: The Search for a Pareto-Safe Allocation between Fishing and Processing Sectors*, 75 LAND ECON. 203

On July 10, 2002, the U.S. House of Representatives Committee on Resources approved the Magnuson-Stevens Act (H.R. 4749) lifting the moratorium on individual quota systems.³² Although an amendment by Congressman George Miller (D-CA) was added to the bill to prohibit IPQs, an amendment by Congressman Jay Inslee (D-WA) exempted the North Pacific from Congressman Miller's amendment.³³ On October 1, 2002, the moratorium on new individual fishing quota (IFQ) programs expired. Nothing has come of H.R. 4749 since July 10, 2002.

III. THE NEED FOR CRAB RATIONALIZATION

A. Decline of the Crab Fisheries

According to the Alaska Marine Conservation Council, "[n]early every crab species [in Alaska] is at extreme low abundance."³⁴ This, however, is not a recent phenomenon. In the past twenty years, the following crab fisheries in Alaska have collapsed: the Kodiak red king fishery closed in 1984;³⁵ the Aleutian Islands red king³⁶ and Norton Sound red king fisheries were both considered "diminished" as of March 2000; the Gulf of Alaska tanner fishery closed in 1995; the Bering Sea tanner (*bairdi*) fishery closed in 1997; and the St. Matthew blue king fishery was declared "overfished"³⁷ in 1999 and closed the

(1999) (analyzing how an "allocation of quota shares only to vessels is an unnecessarily crude policy instrument that will strand nonvertically integrated inshore processing investments").

32. Press Release, News from Congressman James V. Hansen, Chairman, Comm. on Resources, U.S. House of Representatives, *After 7 Hearings, House Resources Committee Reauthorizes Comprehensive Fisheries Act*, 23-17 (July 11, 2002), http://resourcescommittee.house.gov/press/2002/2002_0710Magnuson.htm (last visited July 22, 2002).

33. AMCC PRESS RELEASE, *supra* note 15.

34. Alaska Marine Conservation Council, *Magnuson-Stevens Act: Update*, SEA CHANGE 3 (2002), <http://www.akmarine.org/newsummer02newsletter.pdf> [hereinafter SEA CHANGE].

35. FRANCINE J. BENNIS, ALASKA MARINE CONSERVATION COUNCIL, RED KING CRAB OF THE KODIAK ARCHIPELAGO 1 (2000).

36. The Aleutian Islands red king crab fishery is comprised of the Western Aleutian Islands (or Adak) red king crab fishery and the Eastern Aleutian Islands (Dutch Harbor) red king crab fishery. Last year, the Adak red king crab fishery was open in a limited area—the Petrel Bank area of the western Aleutian Islands. Press Release, Alaska Department of Fish & Game, *Petrel Bank Red King Crab Fishery Pot Limits and Vessel Registration* (Oct. 4, 2002), at <http://www.cf.adfg.state.ak.us/region4/news/2002/NR100402.htm> (last visited Mar. 27, 2003).

37. The term "overfished" means "a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce MSY [the maximum sustainable yield—the largest long term average catch or yield that can be taken from a stock or stock complex under prevailing ecological and environmental conditions] on a continuing basis." BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 41.

same year.³⁸ In addition, during the 1980s and 90s, a number of crab fisheries were closed for one or more years due to low abundance: the Bristol Bay red king crab fishery, which was closed from 1994-95; the Pribilof Islands red king crab fishery, which was closed from 1988-92; and the Pribilof blue king crab fishery, which was closed from 1988-

38. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 2. In addition, the Bering Sea opilio (snow crab) fishery was declared overfished in 1999. *Id.* At the time of Bennis's publication, this fishery was predicted to close in 2001. BENNIS, *supra* note 35, at 1. Despite this prediction about the future of the Bering Sea *C. opilio* (snow crab) fishery, the fishery did not close in 2001. Although the fishery peaked in 1991, declined until 1996, achieved moderate recovery in years 1997-99, and fell to its lowest level since 1984 in 2000, the fishery has remained open. See Commercial Fisheries, Fisheries Statistics & Economics Division, Office of Science & Technology, National Marine Fisheries Service, *Annual Commercial Landings Statistics*, available at http://www.st.nmfs.gov/st1/commercial/landings/annual_landings.html (last visited Sept. 2, 2002) (providing landings for snow crabs from 1981-2000); Division of Commercial Fisheries, Alaska Dep't of Fish & Game, 1996 *Preliminary Alaska Commercial Shellfish Catches & Exvessel Values*, available at http://www.cf.adfg.state.ak.us/geninfo/shellfish/96_value.htm (last visited July 22, 2002) (listing the total pounds caught for the Bering sea *C. opilio* and in Bering Sea *C. bairdi* 1996); Division of Commercial Fisheries, Alaska Dep't of Fish & Game, 1997 *Preliminary Alaska Commercial Shellfish Catches & Exvessel Values*, http://www.cf.adfg.state.ak.us/geninfo/shellfish/97_value.htm (last visited July 22, 2002) (listing the total pounds caught for the Bering sea *opilio* in 1997 and confirming that the Bering Sea *C. bairdi* fishery had closed); Division of Commercial Fisheries, Alaska Dep't of Fish & Game, 1998 *Preliminary Alaska Commercial Shellfish Catches & Exvessel Values*, available at http://www.cf.adfg.state.ak.us/geninfo/shellfish/98_value.htm (last visited July 22, 2002) (listing the total pounds caught for the Bering sea *opilio* in 1998 and confirming that the Bering Sea *C. bairdi* fishery had closed); Division of Commercial Fisheries, Alaska Dep't of Fish & Game, 1999 *Preliminary Alaska Commercial Shellfish Catches & Exvessel Values*, available at http://www.cf.adfg.state.ak.us/geninfo/shellfish/99_value.htm (last visited July 22, 2002) (listing the total pounds caught for the Bering sea *opilio* in 1999 and confirming that the Bering Sea *C. bairdi* fishery had closed); Division of Commercial Fisheries, Alaska Dep't of Fish and Game, 2001 *Bering Sea Snow Crab (C. opilio) Fishery Summary*, http://www.cf.adfg.state.ak.us/region4/shellfish/crabs/catchval/01snow_c/op_sum01.htm (last visited July 17, 2002) (stating that the Bering Sea snow crab (*C. opilio*) fishery was open in 2001 from January 15 until February 14); Email Correspondence from Gordon Kruse, Professor of Fisheries, School of Fisheries and Ocean Sciences, University of Alaska-Fairbanks, to Avi Brisman (July 17, 2002, 12:19:12 ADT) (on file with author) (confirming that the Bering Sea snow crab (*C. opilio*) fishery was open in 2002); 2002 *Bering Sea Snow Crab Estimate Summary by Day*, available at <http://www.cf.adfg.state.ak.us/region4/shellfish/crabs/opilioinfo.pdf> (last visited July 17, 2002) (providing estimated data on total pounds of snow crab caught for the period of January 16, 2002-February 5, 2002).

The fact that the eastern Bering Sea snow crab fishery did not close in 2001 should not be interpreted as an indication that the fishery has recovered or is recovering. According to Professor Ginny Eckert of the University of Alaska Southeast, the fishery is still in a perilous state INTERVIEW WITH GINNY ECKERT, *supra* note 15. For a discussion of the status of the red king crab Bristol Bay stocks and Norton Sound and Aleutian Island stocks; blue king crab Pribilof District stocks and St. Matthew stocks; golden king crab Bering Sea and Aleutian Island stocks; tanner crab Easter Bering Sea stocks and Aleutian Island stocks; snow crab Easter Bering Sea stocks, including charts of the abundance of legal males, pre-season guideline harvest levels, and total catches for the period 1980-97, see North Pacific Fishery Management Council, *King and Tanner Crabs of the Bering Sea and Aleutian Islands Areas: Species Profile* (1998), <http://www.fakr.noaa.gov/npfmc/Reports/crbspeci.pdf> (last visited July 3, 2002).

94.³⁹ These collapses and closures have resulted, in part, from a variety of natural occurrences and human activities, including “[c]hanging oceanographic conditions from those that are favorable to crab productivity to those that are not favorable,” intensive fishing of declining crab populations, “bycatch of crab in other fisheries,” and damage to sensitive habitat.⁴⁰ To exacerbate the problem of decline, there is still a relatively poor understanding of crab biology and ecology.⁴¹ Most agree, however, that the previous and current management practices, the Vessel Moratorium Program (VMP) and License Limitation Program (LLP) respectively, were and will continue to be insufficient if crab fisheries are to be maintained and restored.⁴²

39. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 2. Both fisheries have been closed from 1999 to the present. *Id.* at 60.

40. BENNIS, *supra* note 35, at 1. “Bycatch is the indiscriminate catching of fish and marine life other than those a fishing vessel intends to capture. Marine life caught as bycatch is usually returned to the sea dead, or dying.” Chris Zeman, Fisheries Program Counsel, American Oceans Campaign, *The Devastating Effect of Fisheries Management After Five Years of the Sustainable Fisheries Act*, <http://www.conservefish.org/Act.pdf> (last visited Sept. 2, 2002). To illustrate the severity of the problem of bycatch in general, consider that

in the North Pacific, fishermen in the groundfish and halibut fisheries continue to throw away nearly 350 million of pounds of dead or dying fish as bycatch each year—more than 60 percent as many fish as were landed in all of New England [in 2000]. In New England, bycatch in the Gulf of Maine cod fishery in 1999 is estimated at nearly twice the 1999 annual catch level.

Id. According to the Alaska Marine Conservation Council, in Alaska, “[a]t least 1,000 species of fish and other marine life totaling over 300 million pounds are thrown overboard dead as bycatch annually.” SEA CHANGE, *supra* note 34, at 3. Note, however, that bycatch in the crab fisheries is very different from bycatch in the trawl or longline fisheries. While bycatch is, nonetheless, a problem in the crab fisheries, the numbers do not match those of the groundfish and halibut fisheries mentioned above.

Another contributing factor is *ghost fishing*—the “[i]ncidental capture of fish caused by gear that is lost or abandoned at sea,” SHARING THE FISH, *supra* note 19, at 272.

41. BENNIS, *supra* note 35, at 15; SEA CHANGE, *supra* note 34, at 3 (“scientists . . . don’t know what the habitat requirements are for any of our managed fish species.”); INTERVIEW WITH GINNY ECKERT, *supra* note 15 (“[n]o one can argue that the [snow crab] fishery is in decline . . . we [marine biologists] just don’t know what [has] caused the decline.”); see also BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 37, 49 (“[i]nsufficient evidence exists to determine the cause of the snow crab decline.”).

42. See BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 10 (admitting that while the VMP and LLP were “important initial steps toward the Council’s ultimate goal of developing a more comprehensive and rational management system for the BSAI crab fisheries . . . [The proposed three-pie voluntary cooperative program is] intended to provide a management system for the BSAI crab fisheries that address[es] the problems of an open access fishery in a more comprehensive manner” (emphasis added)).

One should note that, in addition to the VMP and LLP, there are other mechanisms in place to help preserve the crab fisheries. For example, the State of Alaska prescribes gear modifications (such as escape rings and tunnel size), which are established by regulation “to inhibit the bycatch of small crab, female crab, and other species of crab.” BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 38. This Comment will not discuss the sufficiency of these gear modifications, nor will it discuss the observer program, which requires observers,

B. Vessel Moratorium Program

Prior to 1995, the Bering Sea/Aleutian Islands (BSAI) crab fisheries were managed on an "open access" basis.⁴³ This meant that access to the fisheries was not restricted (*i.e.*, there were no license limitations, quotas, or other mechanisms that would limit the number of people harvesting crabs and the amount of crabs that an individual fisherman could take).⁴⁴ Essentially, anyone with the financial resources to purchase a vessel and equipment could become a crab fisherman and harvest as much as he was able. Faced with the rapid growth and overcapitalization of the BSAI crab fisheries, the North Pacific Fishery Management Council (NPFMC) implemented the VMP in September 1995 to "stem the flow of additional, unneeded vessels and capital investment into the [BSAI crab] fisheries under the Council's authority."⁴⁵ Under the VMP, those desiring access to the crab fisheries were required to procure a moratorium permit issued by the National Marine Fisheries Service (NMFS).⁴⁶ The permits were issued based on a vessel's previous history in the fishery. If a vessel made a "legal landing of a moratorium species [such as red king, blue king and opilio tanner crab] during the qualifying period of January 1, 1988 through February 9, 1992," it qualified for a moratorium permit for that species.⁴⁷ If a vessel qualified for a moratorium permit for one species, but not for another, the VMP allowed the vessel to cross over to other fisheries, subject to some conditions.⁴⁸ The VMP also allowed moratorium permits to be transferred so that vessel owners could make improvements to their vessels.⁴⁹ Although the VMP was successful in limiting access to the BSAI crab fisheries, it "was not expected to resolve the problem of excess harvesting capacity in the groundfish and BSAI crab fisheries."⁵⁰ Rather than acting as a means of resource conservation, it functioned as an "interim management measure to provide temporary industry stability by restricting the

who collect biological data and monitor vessel compliance with regulations, on all vessels processing BSAI crabs.

43. See *BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES*, *supra* note 6, at 2-4.

44. *SHARING THE FISH*, *supra* note 19, at 275.

45. *BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES*, *supra* note 6, at 3.

46. *Id.* (Moratorium permits were required for access to the groundfish and halibut fisheries as well.)

47. *Id.* at 4.

48. *Id.*

49. *Id.*

50. *Id.*

number of vessels allowed to participate in the affected fisheries and limiting increases in fishing capacity.”⁵¹

C. License Limitation Program

The next step in the process towards a “comprehensive and rational management program for the [crab] fisheries”⁵² was the License Limitation Program (LLP), which replaced the Vessel Moratorium Program (VMP) on January 1, 2000.⁵³ Under the LLP, any and all persons who want to participate in the regulated fisheries⁵⁴ need to hold a valid crab license issued under the LLP.⁵⁵ Because the application period for applying for an LLP license has closed, however—it ran from September 13, 1999 until December 17, 1999⁵⁶—entry into these fisheries has been limited.⁵⁷ The next subsection provides an overview of how licenses under the LLP were initially allocated.

51. *Id.*

52. *Id.* at 1–2.

53. *Id.* at 4. The proposed rule for the LLP received approval from the Secretary of Commerce on September 12, 1997 and the final rule was published in the Federal Register on October 1, 1998. See 50 C.F.R. § 679.4(k) (2002).

54. The Pribilof red king crab and Pribilof blue king crab fishery, the Norton Sound red king crab and Norton Sound blue king crab fishery, the *C. opilio* and *C. bairdi* fisheries, the St. Matthew blue king crab fishery, the Aleutian Islands brown king fishery, the Aleutian Islands red king crab fishery, and the Bristol Bay red king crab fishery.

55. National Marine Fisheries Service, The North Pacific License Limitation Program (LLP), at <http://www.fakr.noaa.gov/ram/llp.htm> (last visited Aug. 29, 2002) [hereinafter THE NORTH PACIFIC LICENSE LIMITATION PROGRAM]; Email Correspondence from Mark Fina, Senior Economist, North Pacific Fishery Management Council, to Avi Brisman (Aug. 29, 2002, 16:43:32 ADT) (on file with author) [hereinafter EMAIL CORRESPONDENCE WITH MARK FINA, AUG. 29, 2002].

56. National Marine Fisheries Service, *About the License Limitation Program and Instructions for Applying for a License 2*, 5 (1999), http://www.fakr.noaa.gov/ram/About_InstLLP.pdf (last visited Nov. 14, 2002) [hereinafter ABOUT THE LICENSE LIMITATION PROGRAM].

57. A small number of new licenses have been and may continue to be issued from late-filed claims. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 39. But for all intents and purposes, the only way in which someone who currently does not hold an LLP license can harvest crabs commercially is for him to procure a valid LLP license from someone who does. Under the LLP, permanent LLP licenses are transferable from the person holding the license to other persons, pursuant to a number of rules, which include:

- (1) [l]icenses may only be transferred to qualified persons [e.g., the transferee must be a U.S. citizen];
- (2) [u]nless they are initially issued, no person can hold more than ten (10) groundfish licenses or five (5) crab licenses at any one time;
- (3) [a] license holder may not voluntarily transfer his or her license more than one time in a calendar year;
- (4) [t]he transfer process will be used to designate a different vessel on the license; such a ‘designation’ (or ‘re-designation’) of the vessel will be considered a ‘voluntary transfer’ and will only be approved once a calendar year;
- (5) [l]icenses may transfer by ‘operation of law’ (foreclosure, by inheritance, etc.); such transfers (which may or may not include a vessel) will not be considered a ‘vol-

1. Eligibility for an LLP License

When the LLP replaced the VMP, everyone, including those who held a moratorium permit under the VMP, was required to apply for an LLP license; there was no guarantee that holding a moratorium permit would result in an LLP license.⁵⁸ In order to qualify for an LLP permit, the applicant was required to own a vessel and provide documentation that the vessel harvested crabs during two periods—the general qualification period (GQP) and the endorsement qualification period (EQP).⁵⁹ The GQP, as the name implies, applied to all crab species. Thus for the period of January 1, 1988 through June 27, 1992—a period covering the qualification period for the VMP⁶⁰—all that a person needed to show was that his vessel harvested some species of crab on a consistent basis during this time.⁶¹ The purpose of this requirement was to ensure that only vessel owners with past dependence on the fishery qualified.⁶² Unlike the GQP, the EQP was

untary transfer' for purposes of limiting the number of allowable transfers in a calendar year;

(6) [e]ndorsements on licenses are not severable from the license; and

(7) [f]or at least the first three years of the program, a person who receives both a groundfish license and a crab license derived from the qualifying history of one vessel may not transfer one without transferring both

ABOUT THE LICENSE LIMITATION PROGRAM, *supra* note 56, at 4; THE NORTH PACIFIC LICENSE LIMITATION PROGRAM, *supra* note 55.

58. ABOUT THE LICENSE LIMITATION PROGRAM, *supra* note 56, at 2. There were, and continue to be, a number of exceptions to the LLP license requirement. The following types of vessels do not require LLP permits:

- (1) vessels that do not exceed 26 feet in Length Overall (LOA) in the Gulf of Alaska;
- (2) vessels that do not exceed 32 feet LOA in the BSAI; (3) vessels that do not exceed 60 feet LOA, and that are using jig gear (but no more than 5 jig machines, one line per machine, and 15 hooks per line) are exempt from the LLP requirements in the BSAI; and, (4) certain vessels constructed for, and used exclusively in, Community Development Quota fisheries.

Id. at 2, n.1.

59. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 4. "Applicants who own[ed] a vessel's fishing history, and who were not the owner(s) of the vessel on June 17, 1995, [were required to] demonstrate their ownership of the fishing history by presenting a 'clear and unambiguous' contract for the sale of the fishing history that separate[d] the history from the vessel (or by the sale of the vessel in which the vessel's fishing history [was] explicitly excluded from the contract by which the vessel was conveyed to a purchaser)." ABOUT THE LICENSE LIMITATION PROGRAM, *supra* note 56, at 3.

60. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 4.

61. "Alternatively, a vessel satisfies the GQP requirement if it has a documented crab harvest between January 1, 1988 and December 31, 1994 provided it has landing of any king or Tanner crab species between February 10, 1992 and December 11, 1994 and a documented harvest or groundfish between January 1, 1998 and February 9, 1992. Vessels that participated in the Norton Sound red and blue king crab fisheries and the Pribilof red and blue king crab fisheries are exempt from the GQP requirement." BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 4.

62. *Id.*

species specific. For example, if the applicant wanted to harvest Pribilof red king crab and Pribilof blue king crabs, he needed to show that he participated in one harvest between January 1, 1993 and December 31, 1994.⁶³ If the applicant wanted to harvest Aleutian Islands brown king crabs, he needed to show that he participated in three harvests between January 1, 1992 and December 31, 1994.⁶⁴ The purpose for the EQP requirement was to ensure that only vessel owners with recent participation in the fishery qualified.⁶⁵

On September 24, 2001, NMFS issued Amendment Ten to the Fishery Management Plan (FMP) for the Commercial King and Tanner Crab Fisheries in the Bering Sea and the Aleutian Islands (Amendment 10), which added a recent participation requirement to the eligibility requirements for a crab species LLP license.⁶⁶ Amendment 10 requires that those holding LLP licenses provide documentation of a harvest during the recent participation period (RPP), which extended from January 1, 1996 through February 7, 1998.⁶⁷ The pur-

63. *Id.* at 5; ABOUT THE LICENSE LIMITATION PROGRAM, *supra* note 56, at 19.

64. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 4; ABOUT THE LICENSE LIMITATION PROGRAM, *supra* note 56, at 19. For Norton Sound red king crab and Norton Sound blue king crabs, the required number of harvests is one, and the endorsement qualification period is from January 1, 1993 through December 31, 1994. *Id.* For *C. opilio* and *C. bairdi*, the required number of harvests is three, and the endorsement qualification period is January 1, 1992 through December 31, 1994. *Id.* For St. Matthew blue king crab, the required number of harvests is one, and the endorsement qualification period is from January 1, 1992 through December 31, 1994. *Id.* For Aleutian Islands red king crabs, the required number of harvests is one, and the endorsement qualification period is from January 1, 1992 through December 31, 1994. *Id.* For Bristol Bay red king crabs, the required number of harvests is one, and the endorsement qualification period is from January 1, 1991 through December 31, 1994. *Id.*

65. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 4.

66. Fisheries of the Exclusive Economic Zone Off Alaska; License Limitation Program, 66 Fed. Reg. 48,813, 48,814 (Sept. 24, 2001) (to be codified at 50 C.F.R. pt. 679). The rule took effect at the beginning of the 2002 fishing season. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 5.

67. Fisheries of the Exclusive Economic Zone Off Alaska; License Limitation Program, 66 Fed. Reg. 48,813, 48,814 (Sept. 24, 2001) (to be codified at 50 C.F.R. pt. 679). BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 5. The RPP also applies to those individuals who hold "interim" permits. Following the close of the application period in December 1999, interim permits were issued "if any part of a person's claim [was] contested." *Id.* at 39. Many interim permits still exist—of the 395 crab licenses that currently exist, 113 are interim licenses. *Id.* NMFS continues to make determinations as to whether these claims are valid. Where NMFS determines enough information exists to support the claim, it will grant the license, provided the applicant also satisfies the new RPP requirement as well.

The RPP does not apply to:

- (1) A person who only qualifies for a Norton Sound red and blue king crab endorsement [i.e., someone who wishes to harvest only Norton Sound crabs];
- (2) [a] person whose qualifying vessel is less than 60 ft. LOA [length overall];

pose of the RPP is to “preserv[e] activity reductions in the crab fisheries.”⁶⁸ It ensures both that licensed persons inactive in the crab fishery since 1995 will not use those licenses to harvest and that they will not transfer their licenses to new entrants.⁶⁹

2. Problems with the LLP

The problem with the LLP (like the problem with the VMP) does not lie in the entry mechanism. Issuing licenses based on fishing history has proven to be an effective means for limiting the number of vessels permitted to harvest crabs. Rather, the problem lies in the fact that under the LLP, there is no limit to the number of crabs an individual can catch during the season.⁷⁰ Currently, the BSAI crab fisheries are managed using guideline harvest levels (GHLs), or catch limits, which are set for each crab species by the Alaska Department of Fish & Game (ADF&G) prior to the opening of the species' respective seasons.⁷¹ ADF&G derives the GHLs for most crab stocks by taking the data from annual surveys of the crab stocks, estimating the number of male crabs that will reach maturity, and then setting a target catch, in pounds, based on these estimates to prevent depletion of the stocks.⁷² ADF&G then projects the length of the season based on the estimated time for the GHL to be fully harvested.⁷³ Once the season opens, vessels communicate with ADF&G via marine telex e-mail or VHS radio to report their catches.⁷⁴ Based on these in-season reports, ADF&G can adjust the length of the season as well as the GHL, if the reports suggest that the surveys under- or over-estimated the crab populations.⁷⁵ Once the GHL is reached, ADF&G closes the fishery by

(3) [a] person whose qualifying vessel was lost or destroyed during the RPP but which made a documented harvest of crab species during the period after the vessel was lost or destroyed through January 1, 2000; and

(4) [a] person whose vessel made a documented harvest of crab species during the period January 1, 1998 through February 7, 1998 and who obtains the fishing history of a vessel that meets the GQP and the EQP, or enters into a contract to obtain the fishing history of a vessel that meets the GQP and EQP, by 8:36 PST on October 10, 1998.

Id. at 5.

68. *Id.*

69. *Id.*

70. EMAIL CORRESPONDENCE WITH MARK FINA, AUG. 29, 2002, *supra* note 55.

71. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 38, 173.

72. *Id.* at 38, 173–74.

73. *Id.* at 173.

74. *Id.* at 175.

75. Note, however, that “[w]ith recent declines in various BSAI crab stocks . . . in-season adjustments within the GHL range have not occurred.” *Id.* at 174.

emergency order.⁷⁶ Unfortunately, “even with good in-season assessment and real-time catch reporting, catches can change rapidly and a large efficient fleet can quickly surpass a harvest target when [vessels] locate high concentrations of crabs.”⁷⁷ For example, in 1996, the Bristol Bay red king crab fishery GHL was five million pounds and in four days, the harvest exceeded 8.4 million pounds—a sixty-eight percent average.⁷⁸ In 1997, the GHL was seven million pounds, but 8.5 million were taken in four days—a twenty-one percent average.⁷⁹

While these numbers show the ease with which the GHL can be grossly exceeded, they also indicate that the season for many crab fisheries is extremely short. These short seasons raise safety and economic concerns.⁸⁰ With seasons only several days long and no limits to the amount of crabs that a vessel can harvest, there is a race to catch as many crabs as one can.⁸¹ This race, often referred to as a “fishing derby,” requires fisherman to harvest in dangerous weather or dangerous conditions, resulting in high levels of occupational loss of life and injury.⁸² In addition, because the LLP guarantees only who will participate in the derby and not a specific share of the GHL, there is little economic stability for harvesters, processors, and coastal communities.⁸³

In considering the shortcomings of the LLP, one should recognize that the program, like the VMP, was not intended to completely resolve the problem of excess harvesting capacity. Rather, the LLP was intended “to serve as an interim [or first] step toward a more comprehensive solution to the conservation, management, and economic problems in an open access fishery.”⁸⁴ NPFMC’s proposed three-pie voluntary cooperative program, discussed in the next Part, represents the “second step”⁸⁵ for BSAI fisheries, with the goal of “al-

76. *Id.* at 38.

77. *Id.* at 176. See also REPORT TO CONGRESS, *supra* note 6, at 5 (“[t]he GHL is often exceeded through no fault of the managers because in-season monitoring cannot keep pace with harvests during the short seasons”).

78. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 176.

79. *Id.*

80. See SHARING THE FISH, *supra* note 19, at 33–36.

81. See EMAIL CORRESPONDENCE WITH MARK FINA, AUG. 29, 2002, *supra* note 55.

82. See Arne Fuglvog, *The Positive Benefits of the Halibut and Sablefish IFQ Program*, National Fisheries Conservation Center, http://www.nfcc-fisheries.com/ir_pov_c09.html (last visited June 20, 2002); BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 12.

83. See BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 1, 12.

84. *Id.* at 4.

85. See *id.* at 3.

leviat[ing] problems of resource conservation, bycatch and handling mortality, excessive harvesting capacity, lack of economic stability, and safety that have arisen under the race to fish.”⁸⁶

IV. NPFMC'S THREE-PIE VOLUNTARY COOPERATIVE PROGRAM

As mentioned in the previous Part, one of the problems with the License Limitation Program (LLP) is that an individual is permitted to catch as many crabs as he can until the guideline harvest level (GHL) is reached and the fishery is closed. Even with real-time reporting, the GHL can be grossly exceeded, contributing to the problem of stock decline. North Pacific Fishery Management Council's (NPFMC) proposed three-pie voluntary cooperative program addresses this problem in two ways.⁸⁷ First, it replaces the GHL with a total allowable catch (TAC).⁸⁸ The difference between a GHL and a TAC is that a TAC sets a specific catch limit, whereas a GHL sets a target catch range.⁸⁹ According to NPFMC, “[t]his more precise management of harvests should benefit stocks.”⁹⁰ Second, NPFMC's proposal allocates a certain percentage of the TAC to each harvester. This means that when a fisherman sets out to harvest crabs, rather than attempting to harvest as many crabs as he can in a short period of time, he will know beforehand how much he can harvest. This increases each harvester's accountability and decreases the chance of overharvests from the fishery.⁹¹ This Part of the Comment provides an overview of how the three-pie voluntary cooperative program would work and how the TAC allocations would be made.⁹² This overview is only intended to highlight some of the more prominent features of the three-pie voluntary cooperative program—the features most likely to raise legal concerns, as discussed later in Part V.

86. *Id.* at i.

87. It is important to reemphasize that NPFMC's purpose in proposing the “three-pie voluntary cooperative” program is not solely to address the depleted state of the crab fisheries caused, in part, by the insufficiencies of the LLP. In addition to such conservation goals, “[r]ationalization will improve *economic* conditions substantially, for all sectors of the crab industry.” Letter from David Benton, Chairman, North Pacific Fishery Management Council, to United States Congress, Aug. 5, 2002 (on file with author), and will “improve safety of participants in the fishery by ending the race for fish.” REPORT TO CONGRESS, *supra* note 6, at 1.

88. REPORT TO CONGRESS, *supra* note 6, at 5.

89. *Id.*

90. *Id.*

91. *Id.*

92. This Comment will not discuss captains shares and the crew loan program, the provisions for catcher/processors who participate in both the harvest and processing sectors, or the data collection and review programs to assess the success of the rationalization program.

A. Overview of NPFMC's Preferred Alternative

Under the three-pie voluntary cooperative program, all of the TAC would be allocated each year through harvest shares.⁹³ Each eligible harvester would be allocated a long-term quota share (QS)—“a revocable privilege that [would] allow the holder to receive an annual allocation of a specific portion of the annual TAC from a fishery.”⁹⁴ (The annual allocation is referred to as an individual fishing quota (IFQ).⁹⁵) Ninety percent of a person's initial allocation would be as Class A shares, while ten percent of a person's initial allocation would be as Class B shares.⁹⁶ Long-term processing quota shares (PQS), enabling processors to receive annual individual processing quotas (IPQ), would be issued for ninety percent of the TAC (corresponding one-to-one to the Class A shares). Thus “in each fishery, there will be jockeying among harvesters to marry their Class A IFQs with processors' IPQs.”⁹⁷ This means that a harvester could sell his Class A allocation only to a processor who has not filled its quota. If a processor has filled its quota, then the harvester would have to sell to a processor who had not met its quota. The ten percent Class B shares would go to all harvesters proportionally to their initial allocation. Thus, each harvester would receive ninety percent of his allocation as Class A shares and ten percent of his allocation as Class B shares. Since there would be no harvester restrictions on Class B shares, the harvester would be free to sell his Class B shares to whichever processor will give him the best price.⁹⁸

Regional allocation would be accomplished by designating all Class A harvest shares—the shares that have restrictions on their delivery—and all corresponding processing shares to one of two regions: *North*—areas on the Bering Sea north of 56° 20' north latitude, which would include the Pribilof Islands and all other Bering Sea Islands lying to the north; and *South*—any area that is not North, including Kodiak and other areas of the Gulf of Alaska.⁹⁹ Class B harvest

93. REPORT TO CONGRESS, *supra* note 6, at 2.

94. *Id.* at 6.

95. *Id.*

96. *Id.* at 2, 6.

97. Email Correspondence from Mark Fina, Senior Economist, North Pacific Fishery Management Council, to Avi Brisman (July 9, 2002, 13:18:16 ADT) (on file with author).

98. This helps “to balance negotiating leverage between the harvesting and processing sectors.” North Pacific Fishery Management Council, *News and Notes* 1, June 2002, at <http://www.fakr.noaa.gov/npfmc/Newsletters/0602news.pdf> (last visited July 2, 2002).

99. REPORT TO CONGRESS, *supra* note 6, at 3. For “the Western Aleutian Islands (Adak) golden king crab fishery, the designation is based on an east/west line to accommodate a different distribution of activity in that fishery.” *Id.* n.4. In addition, the Bering Sea *C. bairdi* fishery would have no regional designation. The reason is that this “fishery is anticipated to be con-

shares, however, would not be subject to regional landing requirements, and thus “[c]rab harvested with Class B shares could be landed at any location under the program.”¹⁰⁰

B. Eligibility

1. Harvesters

In order to receive a QS, and subsequently an IFQ, the harvester would have to currently hold a valid, permanent, fully transferable LLP license.¹⁰¹ Much the way that entry into the LLP was based on an individual’s past performance in the fishery, under the three-pie voluntary cooperative program, Qs for a fishery would be based on “the harvester’s average annual portion of the total qualified catch during a specific qualifying period.”¹⁰² For example, the QS for someone wishing to harvest Bristol Bay red king crabs would be based on the relationship of his four best years of harvesting during the five-year period of 1996–2000 in comparison to the total amount of Bristol Bay red king crabs caught during that time.¹⁰³

ducted primarily as an incidental catch fishery with the Bristol Bay red king crab and Bering Sea *C. opilio* fisheries making any regional designation operationally difficult and potentially overly restrictive.” *Id.* at 19.

100. *Id.* at 18. In addition to the regionalization component, NPFMC is currently considering several different options intended to further protect communities. *Id.* at 19; North Pacific Fishery Management Council, Council Actions for Item C-1 BSAI Crab Rationalization 4–5, October 4, 2002, available at http://www.fakr.noaa.gov/npfmc/Motions/council_crab_oct02_motion.pdf (last visited Nov. 9, 2002) [hereinafter CRAB RATIONALIZATION MOTION OCTOBER 2002].

101. REPORT TO CONGRESS, *supra* note 6, at 6.

102. *Id.*

103. *Id.* at 6–7. The qualifying periods differ for each species because of closures and other circumstances in the fisheries in recent years. *Id.* at 6. The qualifying period for determination of the QS distribution of Bering Sea *C. opilio* (snow crab) is the best four out of five season from 1996–2000. The qualifying period for determination of the QS distribution of Bering Sea *C. bairdi* (Tanner crab) is the best four out of six seasons from 1991/92–1996. The qualifying period for determination of the QS distribution of WAI (Adak) golden king crab is all five seasons from 1996/97–2000/01. The qualifying period for determination of the QS distribution of EAI (Dutch Harbor) golden king crab is all five seasons from 1996/97–2000/01. The qualifying period for determination of the QS distribution of WAI (Adak) red king crab—West of 179’ West is the best three out of four seasons from 1992/93–1995/96. The qualifying period for QS distribution of Pribilof blue and red king crab is the best four out of five seasons from 1994–98. The qualifying period for QS distribution of St. Matthew blue king crab is the best four out of five seasons from 1994–98. *Id.* at 7.

2. Processors

Processors would be eligible to receive PQS if they are U.S. corporations or partnerships¹⁰⁴ and if they processed crab during 1998 or 1999.¹⁰⁵ If a processor did not process crab in 1998 or 1999, it would be eligible to receive PQS under a "hardship provision" if it met the following provisions: (a) if it processed opilio crab in each season between 1988–97; and (b) if it invested significant capital (direct investment in processing equipment and processing vessel improvements in excess of \$1 million) in the processing platform after 1995.¹⁰⁶ The purpose of these eligibility criteria is "to prevent reentry of processors that have already elected to exit the fisheries."¹⁰⁷ In addition, allocation of PQS would be based on processing history during a specified qualifying period for each fishery.¹⁰⁸ "A processor's allocation in a fishery would equal its share of all qualified processing in the qualifying period (*i.e.*, pounds processed by the processor divided by pounds processed by all qualified processors)."¹⁰⁹ The qualifying periods for determining processor allocation would vary by fishery.¹¹⁰ Each fishery has a different period to compensate for variations in the fishery's management, such as closures. "The most recent seasons were excluded in part to limit the effectiveness of efforts by participants to obtain a larger allocation by increasing participation in recent seasons when it was apparent that allocations would be based on historic harvest levels."¹¹¹

104. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 257.

105. REPORT TO CONGRESS, *supra* note 6, at 12.

106. *Id.*

107. *Id.*

108. *Id.* As with the qualifying periods for determining allocations in the harvester sector, qualifying periods in the processing sector "were selected to balance historical participation and recent participation." *Id.* at 6.

109. *Id.*

110. For Bristol Bay red king crab (BBRKC), the qualifying years would be from 1997–99; for Bering Sea *C. opilio* (snow crab), the qualifying years would be from 1997–99; for Bering Sea *C. bairdi* (Tanner crab), allocation would be based fifty percent on the allocation for BBRKC and 50% on allocation for Bering Sea *C. opilio*; for WAI (Adak) golden king crab, the qualifying years would be from 1996/97–1999/00; for EAI (Dutch Harbor) golden king crab, the qualifying years would be 1996/97–1999/00; for Adak (WAI) red king crab—West of 179° W, allocation would be based on allocation for WAI (Adak) golden king crab; for Pribilof blue and red crab, the qualifying years would be from 1996–98; and for St. Matthew blue king crab, the qualifying years would be from 1996–98. *Id.*

111. *Id.* at 6.

C. Other Provisions

1. Binding Arbitration

The success of the three-pie voluntary cooperative program hinges on fair price negotiations between harvesters and processors. In light of the fact that the "BSAI crab fisheries have a history of contentious price negotiations,"¹¹² where harvester strikes have settled the prices,¹¹³ the Council included in its three-pie voluntary cooperative program a provision for binding arbitration for the settlement of price disputes between Class A harvest shareholders and processor shareholders.¹¹⁴

2. Cooperatives

Under the three-pie voluntary cooperative program, harvesters would be permitted to form voluntary cooperatives associated with one or more processors holding processor quota shares.¹¹⁵ The purpose of a cooperative would be "to facilitate efficiency in the harvest sector by aiding harvesters in coordinating harvest activities among members and deliveries to processors."¹¹⁶ To illustrate how this might work, imagine that Harvester A has an IFQ of Bering Sea *C. opilio* (snow crabs) and an IFQ of Bering Sea *C. bairdi* (Tanner crabs); Harvester B has an IFQ of Bering Sea *C. opilio* (snow crabs), an IFQ of Bering Sea *C. bairdi* (Tanner crabs), and an IFQ of EAI (Dutch Harbor) golden king crabs; Harvester C, an IFQ of Bering Sea *C. opilio* (snow crabs), an IFQ of Bering Sea *C. bairdi* (Tanner crabs), and an IFQ of EAI (Dutch Harbor) golden king crabs; and Harvester D an IFQ of Bering Sea *C. opilio* (snow crabs) and an IFQ of WAI (Adak) golden king crabs.

112. *Id.* at 17.

113. *Id.* at 2.

114. *Id.* at 17. The reason that the binding arbitration provision applies only to disputes between holders of Class A shares and holders of processor shares is that these are the shares for which markets are limited. *Id.* Since Congressional authorization of a binding arbitration program would be needed before such a program could be included in the rationalization program, the Council is still considering different binding final-offer arbitration program structures. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 346. The Council is still considering different binding final-offer arbitration program structures. For a discussion of potential scope of the arbitration, basis for price determination, and enforcement of the binding arbitration decision, see *id.* at 347.

115. REPORT TO CONGRESS, *supra* note 6, at 16. At a minimum, there would need to be four unique harvesters holding QS for cooperative formation. *Id.*

116. *Id.* Cooperatives also help ensure that a larger percentage of the TAC is harvested. See *Id.*

If the four harvesters wish to form a cooperative, they would first file a cooperative agreement with the Secretary of Commerce, following Council review.¹¹⁷ Once the filing is made, the cooperative as a whole receives its members' aggregate annual allocation in each of the applicable crab fisheries.¹¹⁸ The cooperative could then decide, for example, that Harvester A would harvest all of the cooperative's IFQ in the Bering Sea *C. opilio* (snow crab) fishery.

The co-op members who would have their Bering Sea *C. opilio* (snow crab) allocations fished by Harvester A would receive a royalty (for their allocations) and Harvester A would receive compensation for doing the fishing. Or, all four harvesters could harvest individually and then "consolidate small portions of their allocations on a single vessel when a small portion of each vessel's allocation is remaining."¹¹⁹ This would "reduce queuing of harvesters waiting to offload their harvests, [thereby further] reducing deadloss of harvested crab."¹²⁰

Essentially, cooperatives would have a good deal of flexibility to set up the type of cooperative agreements that would work best for its members. Cooperative members would be free to leave a cooperative at any time after one season and would retain their individual QS and associated IFQ allocations, which they could then bring to other cooperatives.¹²¹

3. Transferability of QS/IFQs and PQS/IPQs

QS/IFQs would be transferable under the three-pie voluntary cooperative program, "subject to limits on the amount of shares a person may own or use."¹²² In addition, the person seeking the QS/IFQ

117. *Id.*

118. *Id.*

119. *Id.* at 16.

120. *Id.* Processors would benefit from cooperatives because, if harvesters are coordinating their deliveries, "processing crews and equipment have less down time between deliveries." *Id.*

121. *Id.* at 16–17.

122. REPORT TO CONGRESS, *supra* note 6, at 9. The options for capping the ownership of QS would most likely vary between the fisheries. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 240. NPFMC is currently considering several options for capping the ownership of QS. For the Bristol Bay red king crab, *C. opilio*, *C. bairdi*, Pribilof red and blue king crab and St. Matthew blue king crab fisheries, NPFMC is considering the following options: 1.0% of the total QS pool for Bristol Bay red king crab; 1.0% of total QS pool for *C. opilio* crab; 1.0% of the total QS pool for *C. bairdi* crab; 2.0% of the total QS pool for Pribilof red and blue king crab; and 2.0% of the total QS pool for St. Matthew blue king crab. For the Dutch Harbor (EAI) brown king crab, western Aleutian Island (Adak) brown king crab, and WAI (Adak) red king crab west of 179° West longitude, the percentage-cap would be 10%. North Pacific Fishery Management Council, DRAFT Council Motion for Item C-5 BSAI Crab Rationalization 5 (June 10, 2002), <http://www.fakr.noaa.gov/npfmc/Committees/Crab/CouncilCrabMotion602.pdf> (last visited July 3, 2002) [hereinafter DRAFT COUNCIL MOTION]. Note that a person holding and using 1% of the total IFQ for the Bering Sea *C. opilio*

would need to meet certain eligibility requirements. NPFMC is currently considering a number of different eligibility options to receive QS/IFQs by transfer.¹²³ The Council is also considering prohibiting the transfer of QS/IFQs after the first five years of the program, except within cooperatives.¹²⁴ Because cooperatives make fisheries more efficient, limiting transfer by persons not in cooperatives encourages cooperative membership. The rationale behind the five-year period in which leasing is not constrained is “to allow a period of adjustment during which harvesters can coordinate fishing activities and build relationships necessary for cooperative membership.”¹²⁵

PQS/IPQs would also be transferable under NPFMC’s three-pie voluntary cooperative program, subject to ownership caps.¹²⁶ The Council has established three provisions governing the transfer of processor shares. First, “[p]rocessing quota shares and IPQs would be freely transferable, including leasing.”¹²⁷ “Second, IPQs could be used by any facility of the Eligible Processor (without transferring or leasing).”¹²⁸ This means that if an eligible processor owned several processing facilities, it would be free to use its IPQs at any of its facilities,

fishery, for example, could team with someone else also holding 1% of the total IFQ for the Bering Sea *C. opilio* fishery and fish up to 2% from a single vessel. “The caps on harvesters are lower than those on processors mainly because harvesting has had more participants historically.” Email Correspondence from Mark Fina, Senior Economist, North Pacific Fishery Management Council, to Avi Brisman (Nov. 11, 2002, 9:32:13 ADT) (on file with author). For an analysis of the purpose of ownership caps and the factors the Council would consider in assessing the percentage-caps, see BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 238–42.

123. Under one option, all U.S. citizens who have had at least 150 days of sea time would be eligible to receive QS/IFQs by transfer. Under a second option, “[e]ntities that have a U.S. citizen with 20% or more ownership and at least . . . 150 days of sea time,” would be eligible to receive QS/IFQs by transfer. DRAFT COUNCIL MOTION, *supra* note 122, at 4.

124. REPORT TO CONGRESS, *supra* note 6, at 9.

125. *Id.*

126. NPFMC has proposed a cap of thirty percent of the outstanding PQS in each fishery. *Id.* at 15. Thus, for example, a processor cannot own more than thirty percent of the PQS in the St. Matthew Blue King Crab fishery. As with the other fisheries in the proposal, but with the exception of the Bering Sea *C. opilio* (snow crab) fishery, there is no regional limit for the St. Matthew Blue King Crab fishery. Thus conceivably, a processor owning thirty percent of the PQS for the entire St. Matthew Blue King Crab fishery—all of which were in the South Region—could wind up controlling the entire South Region market if the rest of the PQS for the St. Matthew Blue King Crab fishery were allocated to processors in the North Region. In Bering Sea *C. opilio* (snow crab) fishery, the thirty percent cap still applies, but there is also a regional cap. A processor cannot own more than thirty percent of the PQS for the entire Bering Sea *C. opilio* (snow crab) fishery, but it also cannot control more than sixty percent of the market of the Bering Sea *C. opilio* (snow crab) fishery. *See id.* In other words, it may not use all thirty percent of its PQS cap in the North Region if to do so would enable it to control more than sixty percent of the market.

127. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 260.

128. *Id.*

without this constituting a transfer or lease. If, however, its IPQs were categorized for one region, it could not use them at one of its facilities in another region. Similarly, PQS and IPQs “categorized for one region [could not] be transferred to a processor for use in a different region.”¹²⁹

The rationale behind the transferability of QS/IFQs and PQS/IPQs is that it allows for a number of economic benefits. First, allowing the transferability of quota shares would enable “some participants to leave the industry with a compensation financed by the industry itself, that is, to be bought out by the other industry participants.”¹³⁰ Second, the transferability of quota shares would ensure that both QS/IFQs and PQS/IPQs “are held by those who are willing to pay the highest price for them.”¹³¹ This would promote “efficiency in the industry because those who [would be] willing to pay the highest price for quotas would normally be those who expect to utilize them most profitably, either by doing so at a lower cost than others or by transforming the [crabs] into a more valuable product.”¹³²

To further understand how transferable quotas would promote economic efficiency, consider that in the short run “transferability leads to lower operating costs and a higher production value in fisheries plagued by harvesting overcapacity.”¹³³ With respect to harvesters, “[t]hose who [could] fish at the lowest cost or produce the most valuable product [would be] able to buy or lease fishing quotas at a price that is acceptable to both buyer and seller.”¹³⁴ The same would be true for processors and processor quotas—those who could process at the lowest cost or produce the most valuable product would be able to lease PQS or purchase IPQs at a price that is acceptable to both buyer and seller.

In the long run, transferability of quotas would promote economic efficiency because it would result in optimally sized fishing fleets:

129. *Id.*

130. SHARING THE FISH, *supra* note 19, at 168. Note that in writing SHARING THE FISH, the National Research Council discussed only the economic aspects of transferability of IFQs, not PQS/IPQs. However, the economic aspects of transferability of IFQs are applicable to PQS/IPQs.

131. *Id.*

132. *Id.* In theory, processors with market power in the downstream market could also afford to pay higher prices for other processors' quotas. Because of the caps on the percentage of processor quota shares that a processor can own in a given fishery, however, processors will not gain any market power from this system. If they have any market power in downstream markets from other sources, this would enable them to pay more. The three-pie voluntary cooperative program, however, does not seem to be creating or adding to that downstream power.

133. *Id.* at 169.

134. *Id.*

A person or firm with a given quota [would] have no economic incentive to invest in more or larger fishing vessels than needed to take this quota. Alternatively, if there are economies of scale in fishing for the target species, those who wish to invest in vessels of an optimal size but have insufficient quota to utilize the vessels fully [would] be able to buy additional quota for this purpose.¹³⁵

The same would be true for processors. A processor with a given quota would have no economic incentive to invest in more processing equipment than needed to handle its quota. A processor wishing to expand its operations or upgrade its equipment to improve its capacity to process fish could buy additional quotas if its current allocation was insufficient. In this way, transferability serves a third purpose—it helps “to mitigate imbalances that may occur in the initial allocation.”¹³⁶ While the initial allocation is intended to reward past performance, it should also reflect capacity to fish and process because presumably harvesters with larger vessels and processors with more equipment and larger operations should have harvested and processed more crabs during the qualifying periods. Where the initial allocation does not reflect capacity (such as a harvester who had an off-year due to illness or injury), transferability of quota shares would allow the harvester or processor to acquire the desired number of additional shares.

V. LEGAL ISSUES CONCERNING PROCESSOR QUOTAS

Congress has never grappled with the issue of whether to allow the use of processor quotas. As a result, and under the Magnuson Act as it currently stands, the law does not authorize individual processing quotas (IPQs).¹³⁷ The Magnuson Act does not contain any provisions explicitly allowing any Regional Council to submit to the Secretary any fishery management plan, plan amendment, or regulation that creates an individual processor quota program. Furthermore, the national standards espoused in section 301 imply that individual processor quotas are impermissible. Under section 301(a)(5), “[c]onservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that

135. *Id.*

136. *Id.* at 168.

137. Email Correspondence from Mark Fina, Senior Economist, North Pacific Fishery Management Council, to Avi Brisman (July 1, 2002, 9:42:38 a.m. ADT) (on file with author) [hereinafter EMAIL CORRESPONDENCE WITH MARK FINA, July 1, 2002].

no such measure shall have economic allocation as its sole purpose."¹³⁸ Since processor quotas are unrelated to fisheries management or resource conservation,¹³⁹ it would be hard to argue that processor quotas serve a non-economic purpose.¹⁴⁰ There does not seem to be any reason to believe that IPQs are *per se* invalid;¹⁴¹ however, Congress is free

138. 16 U.S.C. § 1851(a)(5) (1996) (emphasis added). Not everyone subscribes to the belief that processor quotas are implicitly unauthorized by law. Under § 303(b)(6)(A), any Council, in preparing a fishery management plan, may establish "a limited access system for the fishery in order to achieve optimum yield if, in developing such system, the Council and the Secretary take into account present participation in the fishery." 16 U.S.C. § 1853(b)(6)(A) (2002). According to Joseph T. Plesha and Christopher C. Riley, "[i]t is clear that this provision would require that the impact of any ITQ allocation on the processing sector also be considered before initial allocations are made. Congress would otherwise have stated that establishment of a limited access system need only consider participation by 'fishing vessels' in the fishery, or some other more narrowly drawn requirement." Joseph T. Plesha & Christopher C. Riley, *The Allocation of Individual Transferable Quotas to Investors in the Seafood Industry of the North Pacific* 7 (1991) (on file with author). Plesha and Riley's argument hinges on the legality of ITQs; they do not argue that the Magnuson Act requires or even permits processor quotas in the absence of ITQs (most likely because their article predates the 1996 moratorium). Essentially, Plesha and Riley believe that because the language of § 303(b)(6)(A) is broad, *i.e.*, it is not restricted to "fishing vessels," then under § 303(b)(6)(A), any IFQ program must also consider the processing sector. This should not mean, however, and Plesha and Riley do not contend, that § 303(b)(6)(A) authorizes IPQ programs. All that Plesha and Riley argue is that the language of the statute requires processors to be considered. There may be other ways to consider processors without creating an IPQ program *per se*. For example, a well-structured, well-run IFQ program would consider processors because by lengthening the seasons for harvesting and reducing the race for fish, there would be more economic stability in the processor sector (albeit not as much as if there were processor quotas).

139. See AMCC LIMITED ACCESS, *supra* note 17. This is not to say that fish processors do not play an integral part in the fishing industry. On the contrary, "[w]ithout processing, much of the fish being brought ashore would never make it to market and thus be useless to catch." SHARING THE FISH, *supra* note 19, at 152.

140. The issue of whether individual processor quotas are permissible under § 301 really boils down to how one interprets "economic allocation" and views the purpose of the program. This Comment considers "economic allocation" to be the sole purpose of the program because the program is intended to benefit the processors and communities in economic ways. NPFMC argues, on the other hand, that "economic allocation" is not the sole purpose of the program. While one of the purposes is to help bring economic stability to the processor sector, NPFMC contends that the program has a social purpose—benefiting the shoreline communities. See Email from Mark Fina, Senior Economist, North Pacific Fishery Management Council, to Avi Brisman (Feb. 17, 2003, 16:22:24 ADT) (on file with author). If one believes, as this Comment contends, that providing economic stability to the shoreline communities is an "economic allocation," then individual processor quotas are impermissible under § 301. If one believes, as NPFMC contends, that providing economic stability to the shorelines communities is a social benefit separate from the "economic allocation" to processors, then individual processor quotas do not violate § 301.

141. On the contrary, in the Consolidated Appropriations Act of 2001, Congress requested that NPFMC analyze various rationalization alternatives including IFQs and IPQs:

The North Pacific Fishery Management Council shall examine the fisheries under its jurisdiction, particularly the Gulf of Alaska groundfish and Bering Sea crab fisheries, to determine whether rationalization is needed. In particular, the North Pacific Council shall analyze individual quotas, processor quotas, cooperatives, and quotas held by communities.

to include a provision authorizing the use of processor quotas during the upcoming reauthorization of the Magnuson Act. Nevertheless, if Congress were to take such a step in developing an IPQ program, Regional Councils should be aware of a number of legal concerns.

This Part analyzes possible challenges to both processor quota systems in general and North Pacific Fishery Management System's (NPFMC) three-pie voluntary cooperative program based on violations of equal protection, "takings" claims, and violations of antitrust

Consolidated Appropriations Act of 2001, *supra* note 29. Although this is not an authorization of IPQs, it suggests that at some level, Congress believes that IPQs are legal.

In addition, there is the American Fisheries Act, which "is the closest Congress has come to authorizing processor shares." EMAIL CORRESPONDENCE WITH MARK FINA, July 1, 2002, *supra* note 137. Pursuant to § 210(b) of the American Fisheries Act:

(1) Catcher vessel cooperatives.—Effective January 1, 2000, upon the filling of a contract implementing a fishery cooperative under subsection (a) which—

(A) is signed by the owners of 80 percent or more of the qualified catcher vessels that delivered pollock for processing by a shoreside processor in the directed pollock fishery in the year prior to the year in which the fishery cooperative will be in effect; and (B) specifies, except as provided in paragraph (6), that such catcher vessels will deliver pollock in the directed pollock fishery only to such shoreside processor during the year in which the fishery cooperative will be in effect and that such shoreside processor has agreed to process such pollock, the Secretary shall allow only such catcher vessels (and catcher vessels whose owners voluntarily participate pursuant to paragraph (2)) to harvest the aggregate percentage of the directed fishing allowance under section 206(b)(1) in the year in which the fishery cooperative will be in effect that is equivalent to the aggregate total amount of pollock harvested by such catcher vessels (and by such catcher vessels whose owners voluntarily participate pursuant to paragraph (2)) in the directed pollock fishery for processing by the inshore component during 1995, 1996, and 1997 relative to the aggregate total amount of pollock harvested in the directed pollock fishery for processing by the inshore component during such years and shall prevent such catcher vessels (and catcher vessels whose owners voluntarily participate pursuant to paragraph (2)) from harvesting in aggregate in excess of such directed fishing allowance.

American Fisheries Act, Pub. L. 107-20 (codified as 16 U.S.C. § 1851(2001)). Pursuant to § 210(b)(6):

Transfer of cooperative harvest.—A contract implementing a fishery cooperative under paragraph (1) may, notwithstanding the other provisions of this subsection, provide for up to 10 percent of the pollock harvested under cooperative to be processed by a shoreside processor eligible under section 208(f) other than the shoreside processor to which pollock will be delivered under paragraph (1).

Id. According to Mark Fina, § 210(b)(1), which requires delivery of a cooperative's harvest to the associated processor, and § 210(b)(6), which permits up to ten percent of a cooperative's deliveries to be delivered to other processors, "these two provisions taken together effectively require 90 percent of deliveries to the associated processor." Email Correspondence from Mark Fina, Senior Economist, North Pacific Fishery Management Council, to Avi Brisman (July 26, 2002, 9:08:04 a.m. ADT) (on file with author). Fina, however, notes that the provisions under the American Fisheries Act are different from an IPQ program: "Harvesters can move from co-op to co-op[,] but must go through an open access fishery (with no guaranteed allocation) for one year to move. This is different from a processor share program in that a processor has no privilege to a share of the landings (i.e., the fishers can move without processor consent)." EMAIL CORRESPONDENCE WITH MARK FINA, July 1, 2002, *supra* note 137.

law.¹⁴² This Part also examines two specific provisions of NPFMC's three-pie voluntary cooperative program that may be legally problematic—binding arbitration and regionalization.

A. Equal Protection Concerns

Under the Fourteenth Amendment to the Constitution, “[n]o State shall make or enforce any law which shall . . . deny to any person within its jurisdiction the equal protection of the laws.”¹⁴³ Although there is no corresponding provision applicable to the federal government, it is well settled that the Fifth Amendment Due Process Clause, “applicable to the federal government and thus to the regional councils and the Secretary of Commerce, incorporates equal protection principles identical to those applied to the states.”¹⁴⁴ Since a limited access

142. It is unlikely that an IPQ program would fail to withstand a constitutional challenge on the basis of substantive due process. According to Christopher L. Koch, who discusses limited entry programs in general:

[i]t is most unlikely that limited entry would be found constitutionally infirm on the basis of substantive due process, and *Corsa v. Tawes* gives great credence to this perception. . . . Although the outcome of any judicial challenge will depend upon the facts surrounding a particular limited entry scheme, unless the details of a specific plan bear no rational relationship to the government's legitimate objectives, substantive due process should not be an obstacle to implementing limited entry.

Christopher L. Koch, *A Constitutional Analysis of Limited Entry*, in LIMITED ENTRY AS A FISHERY MANAGEMENT TOOL 256 (R. Bruce Rettig & Jay C. Ginter, eds., 1978). In *Corsa*, the Court upheld a Maryland statute that prohibited the use of purse nets in the menhaden fishery, rejecting the claim by commercial fishermen that the law effectively abolished the commercial menhaden industry in Maryland (because purse nets were the only economically efficient means of harvesting menhaden), thereby depriving them of liberty and property without due process of law. See 149 F. Supp. 771, 777 (D. Md. 1957), *aff'd* 357 U.S. 37 (1957). The Court found that the state had a legitimate objective—to protect the recreational fisheries that depended upon menhaden—and that the means chosen were rationally related to that objective. *Id.* at 776.

According to Koch, a limited entry system would also withstand challenges claiming violations of procedural due process:

Procedural due process requires that when an individual's life, liberty, or property is significantly affected by governmental action, there must be adequate notice of the action and an opportunity, at a meaningful time and in a meaningful manner, for some type of hearing appropriate to the nature of the case. . . . [Whereas] the application of an objective set of facts should not require a hearing (e.g., vessel size, vessel capacity, years in the fishery), . . . a determination of whether an applicant meets more subjective criteria (e.g., dependence on the fishery, or potential social dislocation) is more likely to generate such a requirement.

Koch, *supra* note 142, at 257, 258. Since the limited entry program proposed by NPFMC would be based on “an objective set of facts,” see Part IV.B *supra*, it is unlikely that a court would find it necessary for the Council to hold hearings for each fisherman and processor applying for a quota share. However, NPFMC must still provide adequate prior notice of the access limitation. *Id.* at 259.

143. U.S. CONST. amend. XIV, § 1.

144. Koch, *supra* note 142, at 260 (citing *Buckley v. Valeo*, 424 U.S. 1, 93 (1976)). See also *Bolling v. Sharpe*, 347 U.S. 497 (1954).

system, such as a quota program, requires the classification of individuals into those permitted and those not permitted to process crabs, the equal protection question raised by this classification process is whether the method by which access to the fishery is allocated treats similarly situated persons alike.¹⁴⁵

There are essentially three different standards of review that courts will employ when confronted with challenges of equal protection violations. Governmental classifications are subjected to *strict scrutiny* if "fundamental rights"¹⁴⁶ or "suspect classifications," such as race¹⁴⁷ or national origin¹⁴⁸ (and sometimes alienage)¹⁴⁹ are involved. Under the strict scrutiny standard, the government has the burden of proving that the classification is necessary to achieve a compelling interest.¹⁵⁰ When this standard is applied, the law in question is generally found to violate equal protection requirements.¹⁵¹

Courts will employ an *intermediate* level of scrutiny in the equal protection analysis of discrimination based on marital status,¹⁵² and gender.¹⁵³ Under the intermediate scrutiny standard, classifications

145. See, e.g., *Cleburne v. Cleburne Living Center, Inc.*, 473 U.S. 432, 439 (1985) (explaining that the Equal Protection Clause "is essentially a direction that all persons similarly situated should be treated alike").

146. If a law discriminates in the right to engage in a protected constitutional activity, such as First Amendment rights, strict scrutiny will apply. Likewise, if a law discriminates in the exercise of implied rights, a stricter mode of judicial review will also be applied. See, e.g., *Shapiro v. Thompson*, 394 U.S. 618 (1969) (right to travel); *Griswold v. Connecticut*, 381 U.S. 479 (1965) (right to privacy); *Zablocki v. Redhail*, 434 U.S. 374, 383-85 (1978) (right to marry); *Harper v. Virginia Bd. of Elections*, 383 U.S. 663, 667 (1966) (right to vote); *Skinner v. Oklahoma ex rel. Williamson*, 316 U.S. 535, 541 (1965) (right to procreate).

147. *Loving v. Virginia*, 388 U.S. 1 (1967).

148. *Oyama v. California*, 332 U.S. 633 (1948).

149. Generally, if a state awards public benefits to citizens, but denies them to aliens, such classification is "inherently suspect and subject to close judicial scrutiny." *Graham v. Richardson*, 403 U.S. 365, 372 (1971). For example, statutes barring aliens from competitive civil service positions, *Sugarman v. Dougall*, 413 U.S. 634, 642 (1973), and from eligibility for membership in the state bar, *In re Griffiths*, 413 U.S. 717 (1973), have been invalidated under the strict scrutiny standard. But under the "political function" exception, if aliens are excluded from positions "that are intimately related to the process of democratic self-government," *Bernal v. Fainter*, 467 U.S. 216, 220 (1984), only the rational basis test is required. See *Foley v. Connelie*, 435 U.S. 291, 297 (1978) (upholding a state statute requiring that police officers be citizens since police officers "are clothed with authority to exercise an almost infinite variety of discretionary powers" involving the public); *Ambach v. Norwick*, 441 U.S. 68 (1979) (upholding a state statute requiring teachers to be citizens); *Cabell v. Chavez-Salido*, 454 U.S. 432 (1982) (finding that probation officers, like police officers and school teachers, exercise official discretion over individuals and qualified for the "political function" exception).

150. *Palmore v. Sidoti*, 466 U.S. 429, 432 (1984).

151. *But see Korematsu v. United States*, 323 U.S. 214 (1944) (upholding the exclusion of Japanese-Americans from certain areas on the West Coast during World War II on the grounds of extreme military danger from sabotage).

152. *Eisenstadt v. Baird*, 405 U.S. 438 (1972).

153. See generally *Craig v. Boren*, 429 U.S. 190 (1976).

“must serve important governmental objectives and must be substantially related to achievement of those objectives.”¹⁵⁴

Finally, courts will employ a *rational basis* test in most other circumstances (those not involving race, national origin, alienage, marital status, gender, etc.). This test asks “whether the classification is reasonable, possesses some rational connection to the measure’s legitimate purpose and treats all within the class alike.”¹⁵⁵ Under this test, “legislation is presumed to be reasonable (*i.e.*, the challenger has the burden of proof), and any reasonably conceivable facts justifying the classification will be accepted.”¹⁵⁶

Of these three standards, a court would most likely apply the rational basis test in analyzing an IPQ program that “allocate[s] permits on the basis of commonly mentioned standards, such as length of experience or extent of investment in a particular fishery, the degree of dependence on a fishery, . . . or the ability to engage in other fisheries.”¹⁵⁷ First, classifications based on processing history are a far cry from the type of classifications that the Supreme Court has previously held to be suspect. Second, “the right to pursue a particular vocation has never been held a ‘fundamental right.’”¹⁵⁸ And third, the “Supreme Court has shown no inclination in recent years to expand the existing list of suspect classifications or fundamental rights.”¹⁵⁹

In applying the rational basis test to NPFMC’s three-pie voluntary cooperative program, a court would first look at the purpose of the IPQ program.¹⁶⁰ A court would probably consider both the broad purpose of crab rationalization as a whole—resource conservation, economic stabilization, safety issues, etc.¹⁶¹—as well as the specific inclusion of IPQs—“to protect processor investment in the fisheries and balance the bargaining power of processors with harvesters receiving harvest shares.”¹⁶² A court would then look at the system by which processing quota shares and individual processing quotas (PQS/IPQ) are allocated (*i.e.*, processing history during a specified qualifying pe-

154. *Boren*, 429 U.S. at 198.

155. *Commercial Fisheries Entry Comm. v. Apokedak*, 606 P.2d 1255, 1262 (Alaska 1980) (internal citations omitted).

156. *Id.*

157. *Koch supra* note 142, at 260.

158. *Id.* (citing *Schware v. Board of Bar Examiners*, 353 U.S. 232, 239 (1957) (stating that qualifications for admittance to the practice of law need have only a ‘rational connection’ with the applicant’s fitness to practice)).

159. *Id.*

160. *See supra* Part IV.

161. *See* BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 1.

162. REPORT TO CONGRESS, *supra* note 6, at 12.

riod). Next, the court would weigh the process by which PQS/IPQs are allocated with the intended purpose of the IPQ program to determine whether the classification (*i.e.*, those who are granted PQS/IPQs and those who are not) is reasonable.

As mentioned above, under the rational basis test, laws will generally be upheld if they are rationally related to a legitimate interest. It is difficult to fail this test and most governmental action examined under this standard is upheld unless it is arbitrary or irrational. Courts will usually defer to the legislature's decision that a law is rational. Loose fitting laws (*i.e.*, laws that are not in every respect "logically consistent" with their aims) are usually held to be constitutional.¹⁶³ Furthermore, the law in question need not be the best law that could have been written to achieve the legislative goal, nor must the law go very far towards achieving the legislative goal. As long as the law is headed down the path towards the legitimate goal, it will be upheld, even if the Court thinks that the law is ill-advised.¹⁶⁴ Thus it seems safe to assume that "as long as a classification of [processors] is rationally related to the statutory purposes of limited entry, and treats all parties within the class alike, it should comply with equal protection criteria."¹⁶⁵

B. "Takings" Concerns

The Fifth Amendment of the Constitution states: "nor shall private property be taken for public use, without just compensation."¹⁶⁶ While this may seem simple enough, interpretation of the takings clause has had a long and storied history. "Courts have had little success in devising any set formula for determining when government regulation of private property amounts to a regulatory taking."¹⁶⁷ In the most recent chapter of the takings chronicle, *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*,¹⁶⁸ the Supreme Court addressed the question of whether a "moratorium on development imposed during the process of devising a comprehensive land-use plan constitutes a *per se* taking of property requiring compensation

163. *Williamson v. Lee Optical of Oklahoma, Inc.*, 348 U.S. 483, 487 (1955).

164. *See Railway Express Agency v. New York*, 336 U.S. 106, 109 (1949).

165. Koch, *supra* note 142, at 260.

166. U.S. CONST. amend. V. The Takings Clause of the Fifth Amendment applies to both the Federal Government and the States. *See Chicago, B & Q. R. Co. v. Chicago*, 166 U.S. 226, 239, 241, (1897); *Webb's Fabulous Pharmacies, Inc. v. Beckwith*, 449 U.S. 155 (1980).

167. *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*, 216 F.3d 764, 771 (9th Cir. 2000) [hereinafter *TSPC IV*].

168. 535 U.S. 302 (2002) [hereinafter *Tahoe-Sierra*].

under the Takings Clause.”¹⁶⁹ The Supreme Court applied the balancing test of *Penn Central Transportation Co. v. New York City*¹⁷⁰ to determine whether compensation was required for land use regulations designed temporarily to freeze all property development, rather than a *per se* rule similar to the one announced in the more recent decision, *Lucas v. South Carolina Coastal Council*.¹⁷¹

Unlike the *per se* rule announced in *Lucas*, which evaluates whether the plaintiff in a takings case has been denied “all economically beneficial or productive use of land,”¹⁷² the test set forth in *Penn Central* requires courts to balance the following: (1) the economic impact of the regulation on the claimant; (2) the extent to which the regulation has interfered with distinct investment-backed expectations; and (3) the character of the governmental action.¹⁷³

Based on the analysis in *Tahoe-Sierra*, it appears the courts would apply the *Penn Central* balancing test, rather than a *Lucas*-like categorical rule, to determine whether an IPQ program constitutes a regulatory taking. As these three cases demonstrate, however, the takings law is in flux and courts could opt not to apply *Penn Central* to an IPQ program, since it is not a land-use regulation. Nevertheless, assuming that courts would apply the balancing test of *Penn Central* (because that was the test applied in the most recent takings law case—*Tahoe Sierra*), let us turn to the takings issues confronting an IPQ program.

There are essentially two takings issues with respect to NPFMC’s three-pie voluntary cooperative program. First, would the IPQ system constitute a taking from the perspective of processors who would be foreclosed from entry into the market based on the initial allocation of PQS established by the Regional Council? Second, would

169. *Id.* at 306.

170. 438 U.S. 104 (1978).

171. 505 U.S. 1003 (1992).

172. *Lucas*, 505 U.S. at 1015.

173. *Penn Central*, 438 U.S. at 124. Under the rule proposed by the petitioners in *Tahoe-Sierra*, which the Court rejected,

there is no need to evaluate the landowners’ investment-backed expectations, the actual impact of the regulation on any individual, the importance of the public interest served by the regulation, or the reasons for imposing the temporary restriction. For petitioners, it is enough that a regulation imposes a temporary deprivation—no matter how brief—of all economically viable use to trigger a *per se* rule that a taking has occurred.

Tahoe-Sierra, 535 U.S. at 320–21. In rejecting the petitioners’ *Lucas*-like categorical rule, the Court explained the rule in *Lucas* was limited to “the extraordinary circumstances when no productive or economically beneficial use of land is permitted.” *Id.* at 330 (quoting *Lucas*, 505 U.S. at 1017 (emphasis in original)).

The Court in *Tahoe-Sierra* also stressed that the question of whether there is a taking depends on the “particular circumstances of the case.” *Id.* at 321.

the IPQ system constitute a taking from the perspective of fishermen who may be limited in where or to whom they can sell their fish? Although the IPQ element of NPFMC's three-pie voluntary cooperative program will undoubtedly have adverse economic effects on both the processors who are excluded from the market and the fishermen who cannot sell to the processors who have reached their quotas, it is unlikely that a court would find a constitutional requirement for compensating either group of individuals.

1. Excluded Processors

Processors who are not given a PQS under the system described earlier might challenge the IPQ program on the following grounds: (a) they have a property right in the "right to process crabs;" or (b) that by their exclusion from the fishery, their equipment or other capital investment has been taken.¹⁷⁴

It is unlikely that processors would succeed in convincing a court that they have a property right in the right to process crabs and that their exclusion from the fishery constitutes a taking. Since courts have never found there to be a property right in a job,¹⁷⁵ processors trying to assert a property right in the right to process crabs would have to argue a violation of the Due Process Clause of the Fifth Amendment. Under the Due Process Clause of the Fifth Amendment, "[n]o person shall be . . . deprived of life, liberty, or property, without due process of law."¹⁷⁶

According to Christopher L. Koch, in his article, *A Constitutional Analysis of Limited Entry*, "[t]he concept of 'liberty' in the due process clause was found to grant every citizen 'the right to live and work where (one) will,' 'to earn his livelihood by any lawful calling,' and 'to pursue any livelihood or avocation.'"¹⁷⁷ Conceivably, excluded processors (as well as excluded harvesters) could argue that they have a right of access to certain fisheries that cannot be "withdrawn or significantly impaired by legislative action, which would preclude application of limited entry programs."¹⁷⁸ Supreme Court jurisprudence indicates, however, that substantive due process challenges to governmental restraints on the right to engage in a particular occupation

174. See Koch, *supra* note 142, at 265.

175. See Local 1330, *United Steel Workers of America v. United States Steel Corp.*, 631 F.2d 1264, 1266 (6th Cir. 1980). Koch notes: "a property right in the right to fish is groundless as an abstract proposition." Koch, *supra* note 142, at 265. Extending this logic, a processor's claim that he has a property right in the "right to process crabs" would also be groundless.

176. U.S. CONST. amend. V.

177. Koch, *supra* note 142, at 254 (citing *Allgeyer v. Louisiana*, 165 U.S. 578, 589 (1897)).

178. *Id.*

will be unsuccessful.¹⁷⁹ Thus, it seems apparent that a court confronted with a processor's assertion of a property right in the right to process crabs would neither take the step of subjecting the claim to the regulatory takings test of *Penn Central*, nor would it find favorably for the processor from a substantive due process perspective.

A court might, however, evaluate a processor's claim that its exclusion from the fishery constituted a regulatory taking of its equipment or other capital investment under the *Penn Central* balancing test. A processor who was not given an allocation of PQS would argue that this exclusion would have a severe economic impact. In response, a court would likely point out that the processor could easily gain access to the fishery by leasing PQS/purchasing IPQs. Although a processor might argue that leasing PQS/purchasing IPQs would be more expensive than being given a PQS allocation to begin with, a court would probably point out that by acquiring a PQ/IPQ, the processor would be guaranteed income from processing, whereas no such guarantee would have existed in a competitive fishery (such as in the current License Limitation Program).¹⁸⁰

With respect to the second prong of the *Penn Central* test, a processor would probably argue that the IPQ program and its subsequent exclusion from the fishery interfered with its "distinct investment-backed expectations." The processor would likely contend that it was deprived of its return on investment because it had invested thousands of dollars in processing equipment, which it was now unable to use. In response, a court might (a) reemphasize that the processor was free to enter the fishery by leasing PQS/purchasing IPQs; (b) point out that the processor would be free to sell or lease its equipment to processors who are already in the industry;¹⁸¹ or (c) suggest that the processor use its equipment and machinery in another fishery.

179. See *Williamson v. Lee Optical Co. of Oklahoma, Inc.*, 348 U.S. 483, 487–88 (1955) (upholding a state statute prohibiting opticians from fitting old lenses into new frames without a prescription).

180. The Ninth Circuit in *TSPC IV* indicated that "a regulation's 'economic effect upon the claimant' may be measured in several different ways." *TSPC IV*, 216 F.3d at 772 (citing *Hodel v. Irving*, 481 U.S. 704, 714 (1987) (looking to the market value of the property); *Key-stone Bituminous Coal Ass'n v. DeBenedictis*, 480 U.S. 470, 493–96 (1987) (looking to whether the regulation makes the property owner's business operation "commercially impracticable"); *Andrus v. Allard*, 444 U.S. 51 (1979) (looking to the possibility of other economic uses besides sale, which was prohibited by the challenged regulation)).

181. Given the regionalization requirements, a processor who purchased equipment prior to the implementation of an IPQ program and wished to subsequently sell his equipment might be able to make a large profit on the sale.

Since it is unlikely that a court would find that the IPQ program and a processor's subsequent exclusion from the fishery would constitute a taking under the first two prongs of the *Penn Central* test, it is doubtful that a court's consideration of the "character of the government action" would sway the court in the processor's favor. In describing the third "prong" of the test, the Court in *Penn Central* explained: "A 'taking' may more readily be found when the interference with property can be characterized as a physical invasion by government . . . than when interference arises from some public program adjusting the benefits and burdens of economic life to promote the common good."¹⁸² Essentially, it seems as if the "character of the government action" is not so much a prong in its own right, but an indication that courts are more likely to find a taking when there is physical invasion of property than when a regulation has the effect of prohibiting a property owner from making certain uses of his private property.

2. Limitations for Fishermen

As mentioned above, under NPFMC's three-pie voluntary cooperative program, ninety percent of a harvester's allocation will be as Class A shares. PQS/IPQs are issued for ninety percent of the total allowable catch (TAC). This means that if a processor has committed all of its IPQs, harvesters must deliver their catch elsewhere. Thus, harvesters will be encouraged to find a processor-partner early in the game. If a harvester waits awhile before "marrying" his Class A shares with a processor's PQS, he will find fewer processors available and runs the risk of not getting as good a price for his catch.¹⁸³ In such a situation, the harvester might argue that the requirement that he sell to specific processors constitutes a taking because of the diminution in value of his catch occasioned by the government action (the IPQ program).

If we apply the *Penn Central* balancing test, it is unlikely that a court would consider the economic impact of the regulation (the three-pie voluntary cooperative program) to be a taking. Although the harvester who waits to "marry" his Class A shares with a processor's PQS might receive less for his catch than if he had married his Class A shares to a different processor earlier on, it is unlikely that the harvester's economic loss would be so great as to create a credible takings claim. The harvester would be assured a fair market price for his catch because of the binding arbitration process for failed price nego-

182. *Penn Central*, 438 U.S. at 124.

183. This is less of a problem if the harvester joins a cooperative.

tiations.¹⁸⁴ Furthermore, the fact that there are no delivery restrictions on Class B shares, allowing the harvester to sell ten percent of his catch to any processor at the best price possible, reduces the likelihood that the IPQ system would run the risk of a taking.

It is also unlikely that a harvester's claim would succeed under the second prong of the *Penn Central* test. In assessing the harvester's "investment-backed expectation," a court would probably look at both the harvester's expectation in entering the fishery (or the harvester's expectation in being given an individual fishing quota (IFQ)) and the harvester's expectation at the start of the specific season in question. Gauging the harvester's investment-backed expectation upon entering the fishery or in being given an IFQ would be difficult because the TAC changes from season to season, as does the demand and price of crabs. Gauging the harvester's investment-backed expectation at the start of the season might make it a bit easier, given that the TAC had been set. Under either analysis, a court would still find that the presence of the binding arbitration process would guarantee a range of prices that would foreclose a taking claim.

C. Antitrust Concerns

As previously described, NPFMC's three-pie voluntary cooperative program would allocate certain quotas to individual crab harvesters (QS/IFQs) who would be directed to deliver a large portion of those quotas to processors also subject to quotas (PQS/IPQs). On the surface, it might appear that NPFMC's proposal "would result in violations of the federal antitrust laws"¹⁸⁵ More specifically, it might appear that IPQs could "become so concentrated as to reach monopoly" levels and that such concentration could facilitate price fixing and

184. See Part IV.C.1 *supra*.

185. Memorandum from Janie E. Rubin, Legislative Attorney, American Law Division, Congressional Research Service, Library of Congress, to the Honorable Patty Murray 1 (July 16, 2002) (on file with author).

The Congressional Research Service (CRS) is a legislative branch within the Library of Congress that provides research, analysis, and information to Members of Congress, their Committees, and staff on a nonpartisan basis. For more information on CRS, see <http://lcweb.loc.gov/crsinfo/whatscrs.html#about> (last visited January 8, 2003).

Although CRS correctly concludes that federal antitrust laws should not pose a problem to the implementation of NPFMC's three-pie voluntary cooperative program, its reasoning is incorrect. CRS mistakenly analyzes NPFMC's three-pie voluntary cooperative program as a "state action" situation—it treats NPFMC as a state regulatory agency and assesses whether NPFMC's proposal violates federal antitrust laws based on the degree of "active supervision" that the Council would exercise over the private activity. Such an analysis is unnecessary with a federal agency. See HERBERT HOVENKAMP, *FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE* 705 (2d ed. 1999).

other illegal restraints on competition.¹⁸⁶ Congress has the power, however, to expressly exempt conduct from antitrust attack. For example, "federal statutes regulating railroads and trucking permit firms to engage in joint rate-making without running afoul of the antitrust policy against collusion."¹⁸⁷ Thus Congress could expressly sanction an exemption from the antitrust laws in the Magnuson Act reauthorization. An express exemption from antitrust laws, however, may not be politically feasible.¹⁸⁸ One could surmise that harvesters are too concerned about the power that processing shares could create for an exemption to be politically acceptable.

A more likely possibility is that an exemption for NPFMC's three-pie voluntary cooperative program will be implied. Since "[m]ost regulatory statutes say nothing at all about the impact of the regulatory regime on antitrust jurisdiction . . . any limitation on or exemption from antitrust must be considered as implied rather than express."¹⁸⁹ However, "the domain of such exemptions is narrow Repeals of the antitrust laws by implication from a regulatory statute are strongly disfavored, and have only been found in cases of plain repugnancy between the antitrust and regulatory provisions."¹⁹⁰ Despite the fact that implied exemptions are rare,¹⁹¹ there is a good chance that a court would find an implied exemption for NPFMC's three-pie voluntary cooperative program if it were challenged as violative of federal antitrust laws. Indeed, the whole *purpose* of the quota system is to consolidate the market in order to reduce the adverse effects on the crab fisheries. Furthermore, the cooperative element of the program and the binding arbitration provisions, both of which encourage fixed prices, are intended to make the market more efficient. Therefore, al-

186. William J. Milliken, *Individual Transferable Fishing Quotas and Antitrust Law*, 1 OCEAN & COASTAL L.J. 35, 45 (1994).

187. HERBERT HOVENKAMP, *FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE* 702 (2d ed. 1999) (quoting Motor Carrier Act of 1980, 49 U.S.C. § 10706(b) ("A carrier that is a party to an agreement of at least two rail carriers . . . that relates to rates . . . shall apply to the Commission for approval of that agreement. . . . If the Commission approves . . . the Sherman Act, the Clayton Act, the Federal Trade Commission Act . . . do not apply . . . with respect to making or carrying out the agreement")) amended by the Staggers Rail Act of 1980, 49 U.S.C. § 10706(a)(2)(A) (2000)).

188. Email Correspondence from Mark Fina, Senior Economist, North Pacific Fishery Management Council, to Avi Brisman (Nov. 24, 2002, 14:22:34 ADT) (on file with author).

189. HOVENKAMP, *supra* note 187, at 703.

190. *Id.* (quoting *United States v. Philadelphia National Bank*, 374 U.S. 321, 350-51 (1963) (internal quotation omitted)).

191. *See, e.g., Gordon v. New York Stock Exchange*, 422 U.S. 659 (1975) (holding that antitrust scrutiny over alleged fixing of brokerage commissions would collide with the New York Stock Exchange's authority to set the rules governing how brokerage rates should be set).

though NPFMC's proposal, by its very nature, is repugnant to anti-trust law, it should withstand any attacks on these grounds.¹⁹²

D. Binding Arbitration

As mentioned in the previous section, since a binding arbitration mechanism has the effect of a regulatory system to set prices, it would normally need a Congressional exemption from antitrust laws. For the reasons described above, however, it is likely that this exemption could be implied, even if there is no express exemption. Putting aside antitrust concerns, "[w]ithout congressional action, it is doubtful that the Council has authority to require binding arbitration in an FMP."¹⁹³

Congressional action would essentially entail an amendment to the Magnuson Stevens Act to include authority for Councils to impose arbitration agreements on industry (or at a minimum, the authority for NPFMC to impose this specific binding arbitration agreement on the crab fishing industry).¹⁹⁴ However, "Congress may only need a simple provision indicating that Councils may include such [binding arbitration] agreements as discretionary provisions in FMP's [sic]."¹⁹⁵ Nevertheless, Congress would still be advised to include "language that would restrict use of such agreements to a particular purpose so that Councils do not abuse their power to impose them."¹⁹⁶

In amending the Magnuson Stevens Act to authorize Councils to implement binding arbitration agreements, Congress would also have to consider the constitutionality of the provision under the Commerce Clause. "While Congress has extensive power under the Commerce Clause to regulate, such power is not unrestricted, and any use of it to influence markets must have a sufficient, supporting reason. Congress

192. Even if one were to try to fit NPFMC's three-pie voluntary cooperative program into the existing antitrust box, it is unlikely that all of its provisions would violate antitrust law. For example, NPFMC has placed a thirty percent cap on the percentage of processor shares that can be owned by one company. See REPORT TO CONGRESS, *supra* note 6, at 15. Processors would not be able to exceed this thirty percent cap through leasing arrangements. CRAB RATIONALIZATION MOTION OCTOBER 2002, *supra* note 100, at 3. In the absence of an exemption, either express or implied, it is unlikely that a court would find the figure of thirty percent problematic. See *Sea Watch Int'l v. Mosbacher*, 762 F. Supp. 370, 380 (D.D.C. 1991) (finding that ownership of more than forty percent of the shares of IFQs did not constitute ownership of "excessive shares"). NPFMC's sixty percent regional cap in the Bering Sea *C. opilio* (snow crab) fishery and complete lack of regional caps in the other fisheries, on the other hand, would be more problematic in the absence of either an express or implied exemption.

193. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 35.

194. *Id.* at 349.

195. *Id.*

196. *Id.*

will need a strong rationale for authorization of this type of regulation to override its intrusion on business, free markets, and freedom of contract."¹⁹⁷ Compounding the Commerce Clause problem is the fact that because the proposed rationalization program is novel, there is no estimate regarding the frequency of breakdowns in price negotiations between harvesters and processors.¹⁹⁸ "Congress and the Council could have difficulty specifying the problem that binding arbitration is intended to address and whether binding arbitration is likely to successfully address that problem."¹⁹⁹

Assuming that Congress would provide authorization for binding arbitration agreements, there is still the question of how the Council should implement the agreement. For example, if the terms and language of the binding arbitration agreement are incorporated into a regulation to effectuate the proposal, the regulation would have to be promulgated under the relatively time-consuming process of the Administrative Procedure Act, which would require lengthy notice and comment periods.²⁰⁰

Finally, any binding arbitration agreement would need to provide for "continual review for consistency with changes in arbitration law."²⁰¹ As the National Oceanic and Atmospheric Administration General Counsel elaborated:

Parties to the agreement may also wish to incorporate changes over time. Agreements of this type typically have termination dates [B]ecause of the changing nature of contracts and the need for review by the Council, NMFS, and the parties, it would appear that an oversight board composed of representatives of the parties to the agreement (and possibly NFMS and Council representatives) could be needed. If it is an advisory board, it may trigger the FACA [Federal Advisory Committee Act] and require public notice of meetings and other strictures about composition and duties.²⁰²

To summarize, while some binding arbitration mechanism seems necessary to resolve price disputes, the hurdles in bringing about such a mechanism seem formidable. Not only would a binding arbitration mechanism require a Congressional amendment to the Magnuson Ste-

197. *Id.* Note, however, that Congress's rationale for granting Councils with the authority to implement binding arbitration agreements need not be any stronger than any other Commerce Clause regulation.

198. *See id.*

199. *Id.*

200. *Id.* at 349, 350.

201. *Id.* at 349.

202. *Id.* at 349-50.

vens Act (which in and of itself requires careful consideration of the constitutionality and scope of the provision), but it would also require potentially lengthy and complicated administrative procedures regarding the implementation and review of any arbitration agreement.

E. Regionalization

As previously discussed, the Council has included a regionalization program as part of its preferred alternative for rationalization, which would divide the Bering Sea/Aleutian Islands (BSAI) into two regions and require harvests made with an IFQ and crab processed under an IPQ to be delivered to a processor in its designated regions.²⁰³ Such a program would not completely constrain the geographic movement of harvesters and processors, because there are only two, fairly large regions, and both harvesters and processors have uninhibited geographic freedom within the two regions.²⁰⁴ It is unlikely that the regionalization program's "limited restraint" would run the risk of violating the Port Preference Clause of the United States Constitution, which provides:

No Preference shall be given by a Regulation of Commerce or Revenue to the Ports of one State over those of another: nor shall Vessels bound to, or from, one State, be obliged to enter, clear, or pay Duties in another.²⁰⁵

First, "the clause applies in cases where government regulations are intended to benefit one state's ports over another state's ports."²⁰⁶ Although the regionalization program would constitute a government regulation benefiting some ports over others, these ports in question are all *within the same state*. Second, "government actions will not violate the clause even when they result in a detriment to a port where the detriment occurs incidental to a legitimate government act regulating commerce or as a result of accident of geography."²⁰⁷ Since there is little question that the government may regulate the commercial fishing industry, it seems unlikely that a challenge to the regionalization pro-

203. *Id.* at 323.

204. Any further constraints on the geographic movement of harvesters and processors would run the risk of overly restricting the consolidation of activities. This, in turn, would threaten any gains in efficiency that the rationalization program hopes to achieve. Thus, the regionalization program, which the Council has proposed, is one of "limited restraint on consolidation . . . intended to balance community interests against the need for consolidation and efficiency" REPORT TO CONGRESS, *supra* note 6, at 18.

205. U.S. CONST. art. I, § 9, cl. 6.

206. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 35.

207. *Id.*

gram based on a violation of the Port Preference Clause would succeed.

It appears that NPFMC's three-pie voluntary cooperative program would withstand attacks based on violations of equally protection, takings claims, violations of antitrust laws, or violations of the Port Preference Clause. The only potential hitch could be the binding arbitration provision. Assuming that Congress does amend the Magnuson Stevens Act to grant authority for regional Councils to impose arbitration agreements on industry, the question then becomes whether the benefits of NPFMC's preferred alternative outweigh the costs.

VI. BENEFITS AND COSTS OF CRAB RATIONALIZATION

Although it appears that North Pacific Fishery Management Council's (NPFMC) three-pie voluntary cooperative program should withstand any legal challenges, it does not necessarily mean that the program as a whole is a good idea. This Comment has discussed some of the problems with the License Limitation Program (LLP), namely how the short seasons raise safety and economic concerns, and has alluded to how the three-pie voluntary cooperative program would be an improvement over the current management system.

This Part examines and expands upon four related benefits and costs that could be derived from rationalization as identified by NPFMC in its document, *Bering Sea Crab Rationalization Program Alternatives: Public Review Draft* (May 2002): (1) benefits derived by producers, including both harvesters and processors; (2) benefits derived by consumers (particularly U.S. consumers) of Bering Sea/Aleutian Islands (BSAI) crabs; (3) costs of monitoring and managing the fisheries; and (4) environmental effects—the combined effects of responses of producers, consumers, and management to rationalization on the environment.²⁰⁸

A. *Benefits to Producers*

“Both production sectors [harvesters and processors] are likely to realize efficiencies and increases in net benefits as a result of rationalization.”²⁰⁹

208. *Id.* at 395. NPFMC emphasizes that “[t]he effects of rationalization cannot be quantified. Quantitative estimation of the effects of rationalization on producers (in both the harvest and processing sectors) requires complete knowledge of the impacts of rationalization.” *Id.* Predicting the impacts of rationalization on these fisheries is difficult for a number of reasons, including the fact that a two-pie IFQ program is unprecedented and that crab stocks are highly volatile. *Id.* at 295.

209. *Id.* at 397.

1. Benefits to Harvesters

Under the current system—the LLP—harvesters who wish to increase their revenues must find a way to increase their harvest rates.²¹⁰ Often this requires the harvester to invest his money in new technologies which promise to increase the amount of crabs caught in a shorter period of time. In this system, harvesters will continue to invest money in new technologies until the cost of the technologies exceeds the amount of revenues derived from those investments.²¹¹ Whereas a competitive fishery, such as the current LLP management, rewards the use of technologies that increase harvest rates, in a rationalized fishery, “harvesters are likely to shift emphasis from inputs [investments] that increase harvest rates to inputs that reduce harvest costs.”²¹² Since harvesters will be given an annual allocation in the form of an individual fishing quota (IFQ), harvesters will have less of an incentive to invest in new technologies to increase harvest rates, thereby reducing their harvest costs.

In addition to reducing harvest costs, rationalization could improve efficiency as well. First, by reducing the incentive to increase harvest rates, rationalization encourages harvesters to take better care of their equipment. Under the LLP, many pots are lost each year, as harvesters calculate that it is financially better to drop a new pot or move on to “known” pots than to spend time looking for lost pots. In a rationalized fishery, where time is less of a factor, harvesters are likely to fish with greater care, allowing them to maximize the use of their pots.²¹³ Second, with less of an incentive to catch as much as they can, harvesters will be able to reduce their crew sizes, thereby also decreasing their harvest costs.²¹⁴

A rationalized fishery should also enable harvesters to improve their product quality. “Clean shell crab” usually brings a higher price in the market than “dirty” or “brown shell crab.”²¹⁵ Without the time constraints of a competitive fishery, harvesters in a rationalized fishery who “retrieve pots with relatively high quantities of dirty shell crab are likely to move to other areas in search of higher value catch.”²¹⁶

Finally, a rationalized fishery should reduce the problem of deadloss. Under the current program, the short fishing seasons result in delivery delays, where harvesters queue up and sometimes have to

210. *Id.* at 396.

211. *See id.*

212. *Id.*

213. *See id.* at 396, 399.

214. *See id.* at 396.

215. *Id.*

216. *Id.*

wait as long as thirty-six hours to offload their crabs.²¹⁷ Since crabs must be processed live, harvesters lose money when their crabs die in the tanks on board (deadloss).²¹⁸ "Reducing the amount of time crab spend in a vessel's tanks should decrease the number of crab that die during the wait to offload."²¹⁹ Since deadloss would be counted against the IFQ holders allocation, any reduction in deadloss would subsequently increase the net benefits for harvesters.²²⁰

2. Benefits to Processors

Just as rationalization is likely to affect the type of investments that harvesters make, processors are also expected to shift from making investments intended to allow them to process crab quickly to investments that increase efficiency in processing.²²¹ The extent of these changes is difficult to predict, however. Crab processing is labor intensive, which means that processors do not invest money in new technologies at the same rate as harvesters.²²² Thus rationalization's reduced time pressures, which will allow harvesters to invest less money in technologies that increase harvest rates, will not have the same effect on processors. In addition, since having crews on hand to process crab can be costly, processors will have to coordinate the employment of crews with the delivery of crabs from harvesters. Failure to do so could result in a less efficient use of crews than under the current LLP.²²³

According to the National Research Council's study, *Sharing the Fish: Toward a National Policy on Individual Fishing Quotas*, the argument for allocating processing quota to processors derives from "a desire to compensate those who will have to leave the industry because of excess processing capacity."²²⁴ Currently, the processing industry is "structured to handle large amount of [crabs] . . . in short periods of time."²²⁵ Since rationalization would change this dynamic, many processors would be left with excess processing capital.

As the Alaska Marine Conservation Council explains:

217. *Id.* at 399.

218. *Id.*

219. *Id.*

220. *Id.* n.79.

221. *See id.* at 397.

222. *Id.*

223. *Id.* It is almost inevitable that, at first, rationalization will result in higher transaction costs than the LLP as harvesters and processors figure out the best means for coordinating deliveries among shareholders. *Id.*

224. SHARING THE FISH, *supra* note 19, at 153.

225. *Id.*

Over the last two decades, processors competed with each other to build more efficient shoreside plants or buy mobile floating plants in order to handle massive volume typical of the open access race for fish. Slowing down the fishery means that fish will be delivered at a steadier pace and some processing technology may become stranded capital.²²⁶

Essentially, the inclusion of processor quotas in NPFMC's three-pie voluntary cooperative program helps ensure that processors will not be economically disadvantaged and perhaps bankrupted by the inability to control the timing of product flow through their plants.²²⁷

In addition, processors will benefit from a reduction in competition in the industry. As NPFMC explains: "[r]egionalization is likely to limit competition in the processing sector. Regionalization will reduce the market of processors to which a harvester can deliver crab harvested with shares that are subject to the regional designation."²²⁸

Finally, processors are also likely to benefit in the development of new products. Since processors will not have the pressure of processing a lot of crab in a short period of time, they will have the freedom to create new crab products. Combined with the increases in product quality from the harvesting of "clean shell crab," the demand for crab could increase, resulting in greater net benefits for processors.²²⁹

B. Benefits to Consumers

Under the LLP, "both harvesters and processors are subject to time constraints that limit their ability to focus efforts on improving product quality and recovery."²³⁰ Since rationalization will remove the time pressures that arise in a competitive fishery, harvesters will be able to improve product quality by harvesting more "clean shell crab" and processors, as mentioned above, will be able to "develop new products, increasing the variety of crab products in the market."²³¹ In addition, since rationalization is likely to improve crab stocks over the long term, consumers are likely to benefit from additional product in the market.²³² Finally, since rationalization will mean an end to seasons of only a few days, consumers will likely be able to obtain fresh

226. AMCC LIMITED ACCESS, *supra* note 17.

227. SHARING THE FISH, *supra* note 19, at 155.

228. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 405.

229. *Id.* at 397.

230. *Id.* at 398.

231. *Id.*

232. *Id.*

crab throughout more of the year (except for the molting and mating periods). This could also cause the price of crab to decrease.

C. Costs of Monitoring and Management

In order for NPFMC's three-pie voluntary cooperative program to be successful, and for the aforementioned benefits to be realized, effective monitoring measures are necessary. According to NPFMC, however, "[m]onitoring requirements and costs are likely to increase in a rationalized fishery."²³³ The main reason for the increase is that rationalization will increase the length of the fishing seasons, thereby increasing the duration of port samplers and observers.²³⁴ In comparison, "[i]n the current competitive fishery, fishers are on the ground for a limited time reducing the period during which managers must monitor fishing. Monitoring costs are minimized by the abbreviated, intense seasons."²³⁵

In addition to the increased monitoring periods, costs will also increase because of the nature of the monitoring required under rationalization. Under the current management practices, which include the use of guideline harvest levels (GHL), "harvests are monitored in the aggregate by collecting harvest information from a sample of participants during the season."²³⁶ NPFMC calculates that "[t]his aggregate method of monitoring harvests [will be] significantly less costly than monitoring the harvests and activities of each vessel (cooperative or processor) during a protracted season."²³⁷ Although cooperative management could reduce the number of allocations that require monitoring, NPFMC contends that these allocations would still likely be more costly than monitoring the aggregate harvests in the current fisheries.²³⁸ Thus, on the whole, rationalization appears to be a more costly management system than the current competitive fishery.

D. Environmental Effects

As mentioned earlier in this section, the current system of management is inadequate if the crab fisheries are to be maintained and restored. Rationalization should result in improved fishing practices and improved crab stock management.²³⁹ Rationalization will also en-

233. *Id.*

234. *Id.*

235. *Id.*

236. *Id.*

237. *Id.*

238. *Id.* at 398.

239. *Id.* at 399.

courage harvesters to fish with greater care, reducing the number of pots that are lost each year.²⁴⁰ “Reducing the number of pots lost each year would help reduce crab mortality caused by ‘ghost fishing,’”²⁴¹ (i.e., the “[i]ncidental capture of fish caused by gear that is lost or abandoned at sea”).²⁴² Furthermore, because a rationalized fishery would involve the use of the total allowable catch (TAC), which is more precise than GHs, the risk of overharvests would decrease (“because the catch of each vessel [would be] strictly limited by share holdings.”).²⁴³

Unfortunately, one of the downsides to rationalization is the potential for high grading, which is a “[f]orm of selective sorting of fish in which higher value, more marketable fish are retained and fish that could be legally retained, but are less marketable, are discarded.”²⁴⁴ As mentioned earlier, longer fishing seasons and guaranteed quotas will enable harvesters to replace the less marketable “dirty” or “brown shell crab” with the more marketable “clean shell crab.”²⁴⁵ If harvesters attempt to increase the quality of their catch through high grading, the benefits derived from rationalization would be greatly reduced. The extent to which harvesters will attempt to increase the quality of their catch and thereby increase discard mortality depends on the extent to which harvesters perceive a future cost to high grading.²⁴⁶ If harvesters fail to realize that wasteful fishing practices reduces future allowable catch and that their *individual* harvest practices will have a substantial effect on future crab stocks, they may try to maximize their current income at the expense of future stocks.²⁴⁷

VII. CONCLUSION

This Comment has attempted to outline the current management system of the crab fisheries in the Bering Sea/Aleutian Islands (BSAI) region and the need for crab rationalization as a result of this system. In addition, this Comment has endeavored to provide an overview of North Pacific Fishery Management Council’s (NPFMC) preferred alternative for rationalization—the three-pie voluntary cooperative pro-

240. See Part VI.A.1, *supra*.

241. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 399.

242. SHARING THE FISH, *supra* note 19, at 272.

243. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 399–400.

244. SHARING THE FISH, *supra* note 19, at 272.

245. See Part VI.A.1, *supra*.

246. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 400.

247. See *id.*

gram—to address the legality of such a program, and to assess its potential benefits and costs. While the legal issues concerning the three-pie voluntary cooperative program appear straightforward, and it seems clear the program would survive legal challenges, weighing the benefits and costs of the proposal is more difficult.

It is obvious that in a two-pie individual fishing quota (IFQ) framework (*i.e.*, one that includes individual processing quotas (IPQ)), as opposed to a harvester-only IFQ program, harvesters are likely to fare worse as the market power shifts from the harvest sector to the processing sector.²⁴⁸ However, the IPQ program, combined with the regionalization program, helps ensure that Alaskan communities with a traditional dependence on the crab industry are not economically disadvantaged.

To illustrate this point, consider that in a harvester-only IFQ program, harvesters would be able to shop around for the best price. Thus, a shore-based plant in St. George, for example, would be left with fewer crabs to process if the harvester can get a better deal in Kodiak. If not enough harvesters sell to the St. George plant, then the plant might go out of business and the town “would feel the pinch from declines in raw fish tax.”²⁴⁹ Local businesses would also suffer.²⁵⁰

By guaranteeing processors a quota share and by requiring that processors accept delivery and process crab in designated regions, NPFMC ensures the economic stability of coastal fishing communities. If NPFMC does implement the three-pie voluntary cooperative program, however, and if the program appears to be nothing more than a means of addressing losses to processors caused by non-malleable capital, the hope is that the Council would do as it suggested and phase out the allocation of processing shares.²⁵¹

On the environmental side, any IFQ-based system will likely be an improvement over the current License Limitation Program (LLP), especially with regard to ghost fishing. The risk of high grading, however, is genuine. One way to reduce this risk would be to base initial allocations not just on catch history, but on demonstrable records of conservation-minded fishing practices—an idea promoted by the Marine Fish Conservation Network.²⁵² This would ensure that the fishery would be composed of harvesters with an eye towards the future –

248. *Id.* at 404.

249. AMCC LIMITED ACCESS, *supra* note 17.

250. *See id.*

251. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 404.

252. SEA CHANGE, *supra* note 34, at 3.

individuals who would respect the commons and not try to maximize their current income at the expense of future stocks.²⁵³

NPFMC should revise its three-pie voluntary cooperative program to directly address the problems of high grading before proceeding with rationalization. Regardless of the ultimate form of crab rationalization, it is important for NPFMC to recognize that in order to ensure the long-term sustainability of the crab fisheries, the specific rationalization program should not be considered a final step, but part of an on-going process. Just as the LLP "was intended to serve as an interim step toward a more comprehensive solution to the conservation, management, and economic problems in an open access fishery,"²⁵⁴ any system of rationalization should be regarded as part of a larger work in progress.

253. One could imagine that discard limits and observer coverage would also help reduce the chances of high grading.

254. BERING SEA CRAB RATIONALIZATION PROGRAM ALTERNATIVES, *supra* note 6, at 4.

Appendix A

ACRONYM LIST

ADF&G	Alaska Department of Fish and Game
BSAI	Bering Sea/Aleutian Islands
CRS	Congressional Research Service
EQP	Endorsement Qualification Period
FMP	Fishery Management Plan
GHL	Guideline Harvest Level
GQP	General Qualification Period
IFQ	Individual Fishing Quota
IPQ	Individual Processing Quota
ITQ	Individual Transferable Quota
LLP	License Limitation Program
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPFMC	North Pacific Fishery Management Council
PQS	Processing Quota Shares
QS	Quota Share
RPP	Recent Participation Period
TAC	Total Allowable Catch
VMP	Vessel Moratorium Program