

## **Options for Restructuring Alaska Salmon Fisheries**

by

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## Introduction

This paper provides a very brief introduction to the very complicated topic of options for restructuring Alaska salmon fisheries. By “restructuring” I mean any change in the rules affecting how, where, when and by whom salmon are harvested in Alaska.

My main goal in this paper is to show that there are many different ways to go about restructuring. The devil is in the details. The choices are not simply between broad options such as “permit stacking” or “buybacks” or “co-ops,” but also—and critically—how those options are designed and implemented. As Alaskans begin to think seriously about restructuring, it is important to think carefully about these choices.

### Why Are We Talking About Restructuring?

Why are we talking about restructuring Alaska salmon fisheries? The Alaska salmon industry is facing severe economic challenges. One way to address these challenges may be to restructure salmon fisheries in order to lower costs, increase value, make management more sustainable, and/or to achieve social goals such as directing a greater share of the benefit from the fisheries to Alaska communities.

Restructuring is not the only strategy for addressing the challenges facing the salmon industry. There are many other strategies as well, such as:

- Reduce costs by improving transportation infrastructure
- Raise value by improving quality
- Raise value through more and better marketing

The choice we face is not between restructuring and these other strategies. The choice is whether restructuring combined with these other strategies is preferable to leaving the current management system unchanged.

Potential problems with our current salmon management system which might be addressed by restructuring include the following:

- **Costs may be higher than necessary.** More boats and gear are fishing than are needed to catch the available fish. People keep upgrading gear to try to catch a larger share (so total costs keep rising even though we’re not catching any more fish)
- **Value may be lower than it could be.** The race for fish may lower quality because fishermen don’t have time to handle fish carefully. We may not be using the best kind of gear for producing high quality fish. The timing of harvests and deliveries may not be optimal for maintaining quality and meeting market demands. We may not be marketing fish as effectively as possible because harvesters and processors don’t know how many fish they will have

- **We may not be achieving our social goals.** Local residents may not be benefiting from our fisheries as locally-owned permits are sold. Permit costs may make it difficult for young people to participate in profitable fisheries.

Restructuring may help to reduce costs by reducing the number of boats fishing and the amount of gear they fish. Restructuring may help increase value by improving the quality of harvested fish and the timing of when they are delivered, and by facilitating more effective marketing.

But costs and value aren't all that matter in thinking about restructuring. There are many other important issues to consider in thinking about restructuring options and their potential effects:

- Constitutional constraints on management options
- Resource sustainability and management costs
- Distribution of benefits of restructuring among fishermen
- Employment of fishermen and crew
- Effects on processors and tenders
- Effects on communities
- Philosophical issues of who should benefit from our salmon resources and what is "fair"
- Internal fishing industry politics
- State and federal politics

### **The Fundamental Choice in Restructuring:**

Our current management system is competitive. A limited entry permit gives you an opportunity to fish. You are competing with other permit holders for the available fish. How much fish you catch depends on how effectively you compete.

There are advantages to a competitive management system:

- Fishermen are used to a competitive system
- Managers are used to a competitive system
- Processors are used to a competitive system
- Fishermen enjoy competing
- Competing for fish allows the hardest working fishermen to get ahead
- Competition is "the American way"

But there are also disadvantages to a competitive management system:

- Racing for fish tends to increase costs
- Racing for fish tends to lower value
- If a fishery is profitable, fishermen tend to keep investing more and more in boats and gear to try to catch a larger share—which increases costs without increasing

value. (Economists call this “capital stuffing.”) So over time a competitive fishery becomes less and less profitable.

- It’s difficult to innovate, because everyone has to use the same gear in order to make the competition for fish fair.

**The fundamental choice in restructuring is whether to keep a competitive management system or change to an allocation-based management system.**

Keeping a competitive management system would be much easier. The changes would be far less drastic. Keeping a competitive system would raise far fewer political and constitutional issues. And it would still be possible to achieve significant economic benefits.

But the opportunities to lower costs and increase value would be far higher with an allocation-based system than a competitive system. The basic reason is that with an allocation-based system, instead of focusing on competing for fish, fishermen can focus their efforts on reducing costs and increasing value.

Put simply, changing to an allocation-based management system would be a much more fundamental change and would be much more difficult and disruptive. But it also has much more potential to reduce costs and increase value.

**A Typology of Restructuring Options**

As we think about restructuring, it is useful to classify restructuring proposals into four broad groups resulting in the following kinds of management systems:

- A. Competitive system with the same number of permits
- B. Competitive system with fewer permits
- C. Allocation-based system with the same gear
- D. Allocation-based system with different gear

Progressing from the beginning to the end of this list, the magnitude of the change increases, the difficulty of restructuring increases, and the social disruption likely to result from restructuring increases. But so does the potential economic benefit from restructuring as a result of lower costs and higher value.

**A. Options Keeping a Competitive System with the Same Number of Permits**

There are a number of ways in which costs could be reduced while keeping the number of salmon permits the same, by changing the rules for how permits may be fished or what a permit entitles the permit holder to do. Below are two simple examples. Many other variations are possible.

### **Divide Permit Holders into Groups**

Under this concept, permit holders would be divided into two or more groups. Managers would allow different groups to fish different openings, balancing openings so that each group would have (hopefully) equal fishing opportunities.

The rationale for this concept is that it would allow savings on fuel because each boat would fish fewer openings. Even though each boat would have only half the fishing time, it could catch the same number of fish because there would be only half as many boats fishing.

In practice, there would obviously be practical difficulties with this approach. It would be a challenge for managers to balance openings so that each “group” really had equal fishing opportunities. In addition, although they would be saving fuel, permit holders and crew would be wasting time while waiting for their fishing openings.

### **Permit Stacking**

Under this concept, permit holders would be allowed to combine their operations, and would be allowed to fish gear proportional to the number of permits in the combined operation. For example, if two permit holders chose to fish together on one boat, they would be allowed to fish twice the length of net. The rationale for this concept would be that it would allow for cost savings because fewer boats would be fishing the same amount of gear.

A variation on this concept would be to reduce the amount of gear allowed for permit holders who chose to fish alone. This would provide an additional incentive for permit holders to combine operations and reduce costs.

A practical difficulty with this approach would be that many permit holders might not want to combine their operations with someone else. Even those who did want to combine operations with someone might not be able to find other permit holders to combine with.

## **B. Options Keeping a Competitive System with Fewer Permits**

Costs could be reduced while keeping a competitive fishery by reducing the number of permits fished. This could be done by “buying out” or “retiring” permits.

Table 1 (on the next page) summarizes some of the key design issues for restructuring approaches based on reducing the number of permits. The critical point to understand is that there are many different ways to go about reducing permit numbers, with very different implications for permit holders and communities.

**Table 1**  
**Restructuring Options Based on Permit Number Reductions: Key Design Issues**

Design Issue	Some Potential Answers	Comments
Is the change in the number of permits temporary or permanent?	Temporary: Permits may be "bought out" from fishing on an annual basis Permanent	Temporary buyouts may be more complicated to administer but offer greater flexibility in response to changes in harvest projections and market conditions.
How do we remove permits from the fishery?	Buybacks--Pay permit holders to give up their permits Retire permits as people default on loans Ban permit transfers and retire permits which aren't fished	Buybacks cost more, but allow for a quicker adjustment to a different number of permits
Who pays for permit buybacks?	Federal government State government The remaining permit holders Federal or state loans paid back by remaining permit holders	The more they can get someone else to pay for a buyback program, the more the remaining permit holders will benefit.
Which permits get bought out, and for how much?	We offer a fixed price for permits and buy all permits offered for sale at that price We accept closed bids for permits and buy back those permit holders who are willing to sell for the lowest price. We offer people different prices based on their recent catch history. The buyout program has a right of first refusal on all permit sales and permits are bought out as permit holders retire.	If the buyout is voluntary, then what we offer to pay will affect how many permits get bought out. The less we are willing to pay for a buyout, the less capacity (in terms of ability to catch fish) we will remove from the fishery.
Do we target certain kinds of permits for buyouts based on social goals?	No. Yes. For example, targeting permits held by non-residents or non-local permit holders.	Targeted buyouts may help to keep permits locally owned--but would reduce the options of local permit holders
If the remaining permit holders pay for a buyback, who pays how much?	All remaining permit holders pay the same amount The payment each year is proportional to catch value	How much the remaining permit holders benefit from a buyback depends partly on how much they catch but also on how much the value of their permit increases. It may be difficult to design a payment system that charges the remaining permit holders in propo

To choose just one simple example, the effects of a permit “buyback” obviously depend on who pays for the buyback. Obviously permit holders would be much better off if someone else (such as the federal government) paid to buy out significant number of permit holders than if the remaining permit holders had to pay for the buybacks.

I urge readers of this paper to study Table 1 carefully. The effects of any restructuring based on reducing permit numbers will depend to a very large extent on how these key design issues are addressed.

### **C. Options Involving an Allocation-Based System With the Same Gear**

In an allocation-based system, shares of some or all of the entire harvest are allocated to groups or individuals. Examples of such systems are harvester coops (such as the Chignik Salmon Cooperative), IFQs and CDQs.

The rationale for allocation-based systems is that because harvesters are no longer competing for fish, they can instead focus on saving costs by catching fish efficiently, and increasing value by handling fish more carefully and delivering in volumes and at times to better meet market demands.

As with restructuring options based on permit reductions, there are numerous issues in the design of restructuring options based on allocations. Table 2 (on the following two pages) briefly summarizes some of these key design issues.

Obviously one of the most critical and controversial issues in allocation based systems is who receives the allocations. If a permit holder receives an allocation equal to or greater than the volume of fish he would have caught in a competitive fishery, he may benefit greatly. If he receives a smaller allocation or no allocation, he may end up significantly worse off.

But the design issues for allocation-based systems go far beyond who should receive allocations. The options for the design of allocation-based systems are far broader than are commonly realized or discussed. Depending on how the system is designed, allocation systems may have very different effects.

I urge readers of this paper to study Table 2 carefully. The effects of any restructuring based on allocations will depend to a very large extent on how these key design issues are addressed.

### **D. Options Involving an Allocation-Based System With Different Gear**

With a competitive management system, everyone has to use the same kind of gear in order to keep the fishery fair for the participants. The managers have to regulate what kind of gear is used, and changes are difficult.

With an allocation-based management system, there is no longer any need for everyone to fish in the same way. Whether or not the fishery is “fair” depends on how the allocation is done, not on how the fish are caught. As a result, it is possible to allow much greater flexibility and changes in gear in order to reduce cost and increase value.

**Table 2**  
**Restructuring Options Based on Allocations: Key Design Issues**

<b>Design Issue</b>	<b>Some Potential Answers</b>	<b>Comments</b>
How much of the fishery is allocated?	Less than 100%--part of the fishery remains competitive	Restructuring may be easier if participation in the allocation-based fishery is optional and permit holders can continue to fish competitively if they wish to. But having two systems may make it more difficult to manage the fishery, and it may be difficult to design a system which is fair to permit holders in both fisheries.
	100% is allocated	
Who makes the allocations based on what criteria?	Board of Fisheries based on criteria which they determine and which may vary from fishery to fishery	The more flexibility in how allocations are made, the greater the opportunity to respond to different regional circumstances, but the more complex and political the process of restructuring and making allocations.
	Board of Fisheries based on standard criteria specified by the Legislature	
	Legislature defines a process for making allocations independent of the Board of Fisheries	
Are allocations to groups or individuals?	One group only	The smaller the number of allocations, the easier it is for managers to achieve and enforce allocation targets, but the harder it is to form and administer groups
	Two or more groups	
	Individuals who must fish in groups of a minimum size	
	Individuals who may fish individually or in groups	
Who receives the allocations?	Permit holders, based on equal shares	Who receives the allocations, and how much (if anything) they pay for them is critically important in determining who will benefit from the restructuring and the fishery.
	Permit holders, based on catch history	
	Communities	
	Auctioned to the highest bidder (like oil leases or timber sales)	
	Permit holders receive allocations based on equal shares or catch history for a limited period of time, with a transition to allocations based on another method such as to communities or by auction	
What do groups or individuals pay for allocations?	Allocations are given away for free.	The more allocation-based restructuring benefits a fishery by increasing its profitability, and the greater the extent to which it reduces the number of people actually participating in the fishery, the greater the extent to which other Alaskans are likely to demand a share in the profits.
	Allocation holders pay a tax or royalty in return for allocations	
	Allocations are auctioned to the highest bidder (like oil leases or timber sales)	
	Communities sell allocations (like CDQ groups)	

*Note: Table 2 continues on the next page.*

**Restructuring Options Based on Allocations: Key Design Issues (continued)**

What is the time period of the allocation?	Annual-varies from year to year depending on the number of permit holders who join a group or some other criterion	Annual allocations offer greater flexibility and are easier to reverse, but offer less certainty for investment in gear and marketing
	Permanent	
If allocations are permanent, are they transferable?	Yes	Transferable allocations offer greater potential for efficiency, but also offer the potential for large windfall gains if received for free, and higher costs for new entrants
	No	
If allocations are to a group of permit holders, how are profits shared within the group?	Must be equal for all permit holders	How profits are shared is critically important to who benefits from allocation-based management.
	Must be based on catch history	
	Optional, to be decided by the group	
If allocations are fished by groups, who does the fishing?	Selection of boats based on which boats can fish for the lowest cost	Those boats which can fish for the lowest cost may not be local boats employing local people.
	Selection of boats based on social criteria (for example, local residents)	
If allocations are fished by groups, how are those boats which fish paid?	Based on pounds caught	If boats are paid based on pounds caught, they may continue to race for fish, resulting in higher costs. If boats are paid based on time fished, they may not work as hard.
	Based on time fished	
If allocations are to a group, what requirements are placed on permit holders who are in the group?	Required to participate in the fishery	The more restrictions, the lower the potential efficiency gains, but the less protection for other fisheries from sideboard effects.
	Required to be physically present during the fishery	
	Required to have a boat locally even if they don't fish	
	Allowed to fish in other fisheries	
What restrictions are placed on groups receiving allocations as to where they sell fish?	None	Allocations to harvesters significantly increase their market power and options. The fewer restrictions, the greater the potential for market benefits to allocation holders. But historical processors and processing communities may be harmed if allocation holders choose new markets.
	Required to sell part of catch to historical buyers	
	Required to sell part of catch to historical buyers for a transitional period only	
Does the limited entry permit system continue, or is it replaced by a different system based on allocations	Yes	The more we move to a system based on allocations, the less clear it is how to interpret regulations based on permits (such as exclusive area registration and permit-holder-on-board requirements) or to determine what privileges are conveyed when a permit transfers.
	No	
How do managers achieve the allocations?	Allocation holders fish consecutively, with managers scheduling fishing opportunities to achieve targets	Consecutive fishing offers opportunities for more allocations to smaller groups--but is harder to enforce and may continue a race for fish.
	Different allocation holders fish simultaneously, but must not exceed cumulative targets which are raised by managers over the season as escapement goals are met	
	Allocations are separated by area--different allocation holders fish in different areas	
Are allocation holders required to continue to fish the same gear?	Yes	With allocations, there is less reason to restrict how fish are caught.
	No	

## **The Latent Permit Problem**

Unfished or “latent” permits represent a significant challenge to restructuring Alaska salmon fisheries. At present, those permit holders who are not fishing are getting no value from the harvest.

Any kind of restructuring which increases the potential value from participating in the fishery will tend to draw some of these permits back into the fishery, either as active harvesters or to share in the potential benefits of buybacks, coops or other allocation-based schemes. To the extent that this happens, the potential benefits to those permit holders who are presently participating in the fishery will tend to be diluted. This will likely represent a significant challenge to achieving consensus about restructuring.

## **Conclusions**

Restructuring of Alaska salmon fisheries will be a very complex task. Any significant changes to how we manage our salmon fisheries may have far-reaching implications which will occur over many years.

There are many different ways to go about restructuring, and many fundamental choices in how to design permit reduction or allocation-based restructuring schemes, which profoundly affect the kinds of effects restructuring may have and who is likely to benefit from restructuring.

Many kinds of restructuring decisions are difficult to reverse. It is important to think very carefully about the effects of different restructuring options and how they are designed.