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ALASKA STATE LEGISLATURE

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REPRESENTATIVE CRAIG JOHNSON
HOUSE DISTRICT 28

September 29, 2009

Dear Members of the Joint Cook Inlet Salmon Task Force,

Attached for your review is a copy of the draft Joint Cook Inlet Salmon Task Force report. While the draft is not complete and unedited, it contains a great deal of meaningful new information. The current draft is nearly one hundred pages long and contains more than two hundred footnotes citing source materials and testimony presented to the Task Force during its hearings. It was prepared by a volunteer – at virtually no cost to the state.

I recently requested funding to complete work on this important report, but it's unclear at this point whether any funding will be authorized. Given that, I wanted to release the draft report for your review.

Two critical sections of the report still remain to be written. One would discuss the status and potential causes of apparent Northern District/Susitna salmon stock declines. Another section, already begun in this draft, would analyze the possibility of using the Commercial Fisheries Entry Commission's "buy-back" program or other means to assist the struggling Upper Cook Inlet commercial salmon fishing fleet which has been economically devastated in recent years.

Finally, it was my intention that the completed report would also include: 1) an executive summary; 2) a section discussing key policy considerations and recommendations for future legislative action or oversight on the issue leading up to the critical Board of Fisheries meeting on Cook Inlet in 2010; 3) numerous charts and graphs depicting key data presented in the report; and 4) standard technical sections including a table of contents, bibliography, etc.

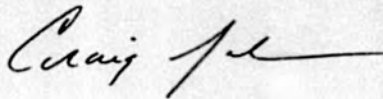
Unfortunately, when the Task Force was formed, it was provided no staff or funding to accomplish its mission – or preparation of a final report. Nevertheless, the Task Force held five public meetings in various Cook Inlet communities and took testimony from the public with a wide range of groups involved in, or dependent on, the Cook Inlet salmon fisheries. Given the tight time constraints and sheer volume of information and testimony presented, it is inconceivable that the Task Force could have prepared a final report of this magnitude without the able volunteer assistance we received. Whether work on the draft will continue or not is now up to legislative leadership. In my opinion it would be unfortunate if this report is never finished.

Because while Cook Inlet salmon allocations and sustainability issues defy easy answers, I believe the Task Force did some important work on the subject. This draft – though incomplete – clearly reflects that effort. It's my sincere hope that release of the draft and the new information it contains will stimulate further discussion on the subject and encourage state leaders to continue to focus on an issue that is of critical importance to all Alaskans.

The draft report and all other documents received by the Task Force can be found on the Joint Cook Inlet Salmon Task Force website below:

http://www.housemajority.org/coms/jcis/jcis_background.php

Sincerely,

A handwritten signature in cursive script, appearing to read "Craig Johnson", followed by a horizontal flourish.

Representative Craig Johnson
Chair, Joint Cook Inlet Salmon Task Force

JOINT COOK INLET SALMON TASK FORCE

DRAFT REPORT TO THE ALASKA STATE LEGISLATURE

DRAFT 4/18/09

I. Introduction: Task Force Formation, Membership & Charge

With the passage of Senate Concurrent Resolution 21 (SCR 21), the Twenty-Fifth Alaska State Legislature established the Cook Inlet Salmon Task Force (Task Force). The Task Force was composed of ten legislators: five members from the State Senate appointed by the President of the Senate and five members from the State House appointed by the Speaker of the House. Representative Craig Johnson was appointed to Chair the Task Force and Senator Lyda Green was appointed to serve as Vice-Chair. Task Force members included Senators Huggins, McGuire, Wagoner and Wielechowski, and Representatives Doogan, Johansen, Neuman and Stoltze.

Per SCR 21, the Task Force was charged with the responsibility of examining a number of issues involving the management of salmon fisheries in Cook Inlet. Specifically, after emphasizing the importance of sport fishing and the Cook Inlet salmon sport fishery to Alaska's Southcentral population and economy, and after expressing serious concerns about the management of that fishery, SCR 21 instructed the Task Force to examine: 1) the conservation and allocation issues in salmon fisheries management of Cook Inlet; 2) the economic effect of Cook Inlet salmon and the maximum benefit of those salmon to the people of Alaska; and 3) the legal and constitutional issues of a buy-back program to reduce the number of commercial fishing permits in Cook Inlet. SCR 21 also mandated

that the Task Force submit a report of its findings to the Twenty-Sixth Alaska State Legislature, with the report to include a discussion of the short-term and long-term uses of Cook Inlet salmon consistent with the maximum benefit principle contained in art. VIII, sec. 2, of Alaska's Constitution; specific proposals to address conservation issues in the Northern Cook Inlet District; and options to reduce allocative conflict in Cook Inlet, including consideration of a commercial fishing permit buy-back program.

II. Duration

The duration of the Task Force and the time allotted for it to complete its mission was the period from the appointment of members in early May 2008 to its mandated termination date on February 1, 2009 – a period of only eight months. In addition, unforeseen impediments to meeting such tight deadlines arose when the governor called the legislature back for two legislative special sessions that required legislators to remain in Juneau for much of June and July. Nevertheless, over the course of the 2008 interim the Task Force held five public meetings to hear presentations and take public testimony on the issues identified in SCR 21. Meetings were held in Soldotna,¹ the Mat-Su,² Anchorage,³ and Juneau.⁴ During the course of the meetings, the Task Force heard presentations from several experts in Alaska fisheries management and took testimony from the public and a wide range of groups involved in the Cook Inlet salmon fisheries.

¹ May 22, 2008, City of Soldotna Sports Center

² May 29, 2008, AT&T Sports Center

³ June 25th and October 9th, 2008, Anchorage Legislative Information Office

⁴ January 29th, 2009, Alaska State Capitol Building

The Task Force also received and reviewed a great deal of written testimony and documentation, including numerous studies. Those included submissions from State Department of Fish and Game managers; biologists; economists; representatives from the Alaska Board of Fisheries (BOF); the Alaska Seafood Marketing Institute (ASMI); the Alaska Commercial Fisheries Entry Commission; outdoor sportsmen's groups and sport fishing groups; commercial fishing groups; aquaculture associations; river guides and others involved in the Alaska sport fishing/tourism industry; fish processors; organizations concerned with fish habitat and environmental impacts; and representatives of local governments and local government-appointed fishery committees. In total, the Task Force compiled more than one thousand pages of documents and written testimony on the topics identified in SCR 21.⁵

III. Report Overview

Given the scope, importance and complexity of the issues involving Cook Inlet salmon management identified by SCR 21; and given the limited time the Task Force had available to review them, it would be imprudent – if not impossible – to draw firm conclusions regarding any of the issues examined by the Task Force. The task was especially difficult with regard to assessing the economic impact of Cook Inlet salmon, as major new studies containing recent data on the economic impact of sport and

⁵ For a complete listing of Task Force meeting agendas, attendees, testifiers and written testimony, documents and reports submitted to the Task Force, as well audio tapes from the meetings, see the Joint Cook Inlet Salmon Task Force webpage which can be found at URL:
http://www.housemajority.org/coms/jcis/jcis_background.php

commercial fishing were only completed at year's end, in December 2008.⁶ Those studies were submitted to the Task Force at its final meeting on January 29th. Thus, members of the Task Force had insufficient time to review in detail the new economic data prior to the Task Force's mandatory termination on Feb 1st. In an attempt to comply with its mandate, however, the Task Force requested a comparative analysis of the new economic studies be conducted and presented by University of Alaska economist Gunnar Knapp,⁷ who provided the Task Force with helpful information at its final meeting.⁸ In addition, in preparing this Task Force report, there was significant additional time to review the two economic studies and confirm with the Alaska Department of Fish and Game (ADF&G) reliable UCI salmon harvest data.

Combined, the two new economic studies and ADF&G commercial harvest data allow for an accurate assessment of the current economic impact of Upper Cook Inlet salmon fisheries. That's significant, because much of the prior economic data, particularly with regard to sport fishing, was fifteen years old. As ADF&G points out on its Sportfish Division website:

“Collectively, the results (of the new study combined with prior ADF&G studies) suggest that during the past fifteen years, the economic

⁶ Southwick Associates, Inc., et al., *Economic Impacts and Contributions of Sportfishing in Alaska, 2007*, Alaska Department of Fish and Game Professional Publication No. 08-01, December 2008. See also Northern Economics, Inc., *The Seafood Industry in Alaska's Economy*, January 2009

⁷ Professor of Economics, Institute of Social and Economic Research (ISER), University of Alaska, Anchorage (UAA)

⁸ Knapp, Gunnar, *Comparison of Recent Sport and Commercial Fisheries Economic Studies*, PowerPoint presentation to the Cook Inlet Salmon Task Force, January 29, 2009; revised February 3, 2009

significance of sportfishing in Alaska has increased considerably, in terms of number of jobs, wages and salaries, and total economic contribution to the Alaska economy. Those who participate in sportfishing are likely to point out that the opportunity to go fishing in Alaska has a value that is often difficult to measure in dollars. However, sportfishing is also an important part of the Alaska economy and a vital source of income to many in small towns and cities throughout the state.”⁹

Of equal significance, however, the Task Force recognized that every aspect of the conservation and management of these critical Alaska fisheries is complex and interdependent, therefore defying easy or immediate solutions. In addition, it became clear to Task Force members that on many Cook Inlet salmon fisheries management issues, there is insufficient scientific data on which to base definitive conclusions. That’s especially true with regard to the status of sockeye salmon stocks in the Susitna Valley, where there is a need for immediate action and more information. The lack of available scientific data on that issue and the sheer complexity of most allocative or management issues involving Cook Inlet salmon fisheries preclude the Task Force from offering the Legislature definitive answers to many of the issues raised in SCR 21.

But such an admission does not suggest the Task Force failed in its mission to carefully examine those issues. To the contrary, the Task Force gathered a great deal of information which has been cataloged and made available to the public online, and took testimony from a wide range of experts, the public, and interested parties currently

⁹ <http://www.sf.adfg.state.ak.us/statewide/economics/>

involved in Upper Cook Inlet salmon fisheries. That process and the discussions that ensued have significantly increased the amount of attention being focused on this critical Alaskan resource management issue. Hopefully the Task Force process and this report will generate continued meaningful policy discussion leading up to the 2011 Board of Fisheries Upper Cook Inlet meeting where salmon allocations will again be reviewed.

In addition, the Task Force process itself clearly conveyed to state fisheries managers the sense of urgency many legislators and members of the public feel regarding the need to re-address the fairness of Cook Inlet salmon allocations and quickly identify any potential problems with current management practices – especially as they relate to the sustainability of Northern District sockeye stocks. That issue requires immediate attention to determine both the extent of any problem and any steps that may be required to correct it. From the Task Force's review, it's an issue deserving of more attention – and action – than it's currently receiving by state fishery managers.

The Task Force process was also beneficial in that it provided a non-confrontational setting where the public and decision makers could interact and discuss key aspects of Cook Inlet salmon fisheries allocations and management practices. So while time constraints and lack of available scientific data made it impossible to draw concrete conclusions on many issues, many meaningful insights were gained.

In sum, this report provides meaningful new information on Cook Inlet salmon allocations and analysis of their economic impact on the region and Alaska. It also sheds light on a potentially dangerous situation with Northern District sockeye stocks. Finally, the report presents a solid analytical framework for future policy debates on Cook Inlet salmon allocations and the issues identified in SCR 21, while also offering suggestions on areas where there is the need for additional research and legislative action.

But what this report does not do – and should not do – is draw firm conclusions on many of the issues. To do so would be inappropriate. Because while members of the Task Force made a sincere effort to comprehend mountains of data and hours of testimony in a very short period, they no opportunity to deliberate. The purpose of this report is to inform the Legislature regarding what the Task Force did in relation to each issue it was charged with examining. Statements made in this report summarize the Task Force's examination of those issues, and draw reasonable conclusions where supported by verifiable, objective data. But the report should not be interpreted as the official position of any member, or the Task Force itself on any issue. The report highlights key data and discusses questions that were either raised or answered as various issues were considered. Given the complexity of the issues and the limited time available, the Task Force did not adopt any official recommendations. Suggestions for continued inquiry, policy discussion

and legislative follow-up are offered at the conclusion of the report.¹⁰ Members were also invited to submit individual recommendations to be included as part of the report.

IV. Cook Inlet Salmon Fisheries: Managing for Resource Conservation, Fair Allocation and “Maximum Benefit”

Introduction

A primary impetus for formation of the Salmon Task Force was an increasing concern among legislators that current state Upper Cook Inlet salmon fisheries management practices fail to meet the Alaska Constitutional mandate that all state natural resources be managed and conserved to achieve “maximum benefit” for the people of Alaska.¹¹

Article VIII, Section 2 of the Alaska Constitution states:

“The legislature shall provide for the utilization, development, and conservation of all natural resources belonging to the State, including land and waters, for the maximum benefit of its people.”¹²

The Constitution further dictates that state fish and game resources are reserved to the people for their “common use”¹³ and are to be utilized and managed on a “sustained yield principle, subject to preferences among beneficial uses.”¹⁴ In fact, Alaska is the only

¹⁰ The suggestions reflect the opinion of the Chair and not official recommendations of the Task Force

¹¹ *Constitution State of Alaska*, Art. VIII, Sec. 2

¹² *Ibid.*

¹³ *Ibid.*, Art. VIII, Sec. 3, “Common Use: Wherever occurring in their natural state, fish, wildlife, and waters are reserved to the people for common use.”

¹⁴ *Ibid.*, Art. VIII, Sec. 4, “Sustained Yield: Fish, forests, wildlife, grasslands, and all other replenishable resources belonging to the State shall be utilized, developed, and maintained on the sustained yield principle, subject to the preferences among beneficial uses.”

state that has a constitutional mandate that requires sustainability of its fish and wildlife resources.

One additional section of the Alaska Constitution specifically addresses management of state fisheries, establishing that there can be no "exclusive right or special privilege of fishery" created or authorized in the waters of the State.¹⁵ That section expressly provides, however, that the language should not be construed to preclude the state from limiting entry into a fishery for the purpose of resource conservation, to protect the livelihood of fishermen and fishing families dependent upon the resource, or the development of aquaculture in the state.¹⁶

In general, the overarching policy goal of the framers of Alaska's Constitution with regard to resource management was clearly laid out in Section 1 of Article VIII which states:

"It is the policy of the State to encourage the settlement of its land and the development of its resources by making them available for maximum use consistent with the public interest."¹⁷

¹⁵ *Ibid.*, Art VIII, Sec. 15, "No Exclusive Right of Fishery: No exclusive right or special privilege of fishery shall be created or authorized in the natural waters of the State. This section does not restrict the power of the State to limit entry into any fishery for the purposes of resource conservation, to prevent economic distress among fishermen and those dependent upon them for a livelihood and to promote the efficient development of aquaculture in the State. [Amended 1972]."

¹⁶ *Ibid.*

¹⁷ *Ibid.*, Art VIII, Sec. 1, "Statement of Policy"

Taken together, those sections of Alaska's Constitution establish the basic framework for management of Alaska's fisheries. But the Constitution doesn't define what constitutes "maximum use," or "maximum benefit," or what "preferences" should be allowed among potential "beneficial uses." Those policy decisions are left to the legislature, the governor, appointed boards and state resource managers, and the courts – with the caveat that all laws, regulations and fisheries management actions must be consistent with the intent and parameters established in the Constitution.

Scope of Task Force Inquiry

The Task Force considered two main issues with regard to whether current state salmon fisheries management practices in Upper Cook Inlet satisfy the requirements of the Alaska Constitution. First, the Task Force examined whether existing management policies are effectively "conserving" the resource to enable current and future "beneficial uses" by Alaskans, especially as it relates to diminishing sockeye salmon returns in the Northern District. Because while there's disagreement about what constitutes "maximum benefit," "maximum use," or appropriate allocations of Cook Inlet salmon resources, there's no question that all of those deliberations are contingent upon the continued viability of the resource. There will be no "benefit" for any Alaskan if the stocks die out – regardless of whether the destruction is due to human or natural causes.

The second major constitutional issue the Task Force examined was whether current allocations are consistent with the "maximum benefit" and "maximum use" clauses of the

Constitution. Much of the testimony the Task Force received focused on those complex and nebulous socio-economic concepts.

Summary of Discussion

The policy question of fair allocation of Cook Inlet salmon resources among competing uses is a complex and highly contentious issue that state leaders and fisheries managers have grappled with for decades. In fact, a subcommittee of the Alaska Board of Fisheries (BOF) recently emphasized that point by stating:

“The Fishery management plans for salmon in Upper Cook Inlet (UCI) are, arguably, the most complex in the State (sic). This complexity has evolved over the years as the Board of Fisheries has struggled to balance the allocation needs and desires of various user groups. Over half of the State (sic) population resides within the UCI watershed. In most years, UCI is second only to Bristol Bay in terms of average commercial sockeye salmon harvests in the State (sic), and also produces significant runs of chinook salmon, with the notable Kenai River known around the world as a premier sport fishing destination for monster kings. These factors and more, arguably, also combine to make the allocative tension in UCI the highest in the State’s (sic) fisheries.”¹⁸

Analysis of Cook Inlet salmon allocations is a critical issue deserving of significantly more time and attention than the Task Force had available. Nevertheless, during its meetings the Task Force heard testimony from parties on many sides of the issue, and

¹⁸ Alaska Board of Fisheries, Upper Cook Inlet Committee, *Upper Cook Inlet Salmon Management Plans and Issues*, March 9, 2007, 3

collected and reviewed economic and scientific data that should help illuminate future allocation and policy discussions. In addition, this section of the report discusses the foundation established in Alaska's Constitution to guide salmon allocations and the relevant historical context in which it developed. It then assesses current Upper Cook Inlet salmon management plans and allocations in relation to that Constitutional framework and subsequently adopted statutory provisions.

The Constitutional Mandate for Resource "Conservation."

The Alaska Constitution makes it clear that state natural resources are to be managed for both utilization and conservation on a "sustained yield" basis.¹⁹ In accordance with that mandate, the Alaska Board of Fisheries (BOF) and ADF&G develop salmon management plans for Upper Cook Inlet.²⁰ The plans are developed as part of Alaska's *Sustainable Salmon Fisheries Policy* (SSSP) which is designed to ensure the long-term sustainability of the resource.²¹

Stocks are managed for "sustained yield" by attempting to ensure sufficient fish return to the spawning grounds each year to guarantee future harvests and the viability of the

¹⁹ *Constitution*, Art. VIII, Secs. 2, 4

²⁰ 5 AAC 39.223(a): "The Department of Fish and Game (department) and the Board of Fisheries (board) are charged with the duty to conserve and develop Alaska's salmon fisheries on the sustained yield principle. Therefore, the establishment of salmon escapement goals is the responsibility of both the board and the department working collaboratively."; For a recent discussion of that process and UCI issues, see Alaska Board of Fisheries, Upper Cook Inlet Committee, *Upper Cook Inlet Salmon Management Plans and Issues*, March 9, 2007; and see Hilsinger, John, Dir. Div. of Commercial Fisheries and Swanton, Charles, Dir. Div. of Sport Fisheries, ADF&G memorandum to Mel Morris, Chairman Alaska Board of Fisheries, *Upper Cook Inlet Management Options*, January 24, 2008

²¹ See generally 5 AAC 39.222, *Sustainable Salmon Fisheries Policy*

stock. The terminology used by ADF&G to describe that variable is “escapement,” the total number of salmon that make it into the rivers and lakes to spawn. Fisheries managers periodically adjust escapement goals for each stock to ensure enough fish make it to the spawning grounds and also to prevent too many fish from spawning, which biologists fear could jeopardize future runs by over-taxing the carrying capacity of the ecosystem. The latter concept, too many spawning fish, is referred to as excess, or “over-escapement.” As ADF&G points out, managing for sustained yield requires identifying not only the number of spawning fish for each stock, but also the number of their offspring that survive to adulthood.²² The number of surviving offspring is calculated by adding the number of spawning fish and the number of fish harvested for each parent generation – thus making accurate assessment of mixed-stock harvests critical.²³

For ADF&G stock and age specific catch and escapement data have been the scientific basis for pre-season run forecasting and establishment of escapement goals.²⁴ Unfortunately, state fishery managers acknowledge that with regard to Upper Cook Inlet sockeye salmon harvests, current methodology used to apportion sockeye salmon catches

²² Fair, Lowell F., Regional Research Coordinator Div. of Commercial Fisheries, ADF&G, memorandum to John Hilsinger, Dir. Div. of Commercial Fisheries, *Upper Cook Inlet stocks of concern follow-up on Yentna River sockeye salmon*, January 30, 2008, 3

²³ *Ibid.*

²⁴ For articulation of state escapement goal policies and definitions, see 5AAC 39.223 *Policy for statewide salmon escapement goals*. For state mixed-stock management policy, see 5 AAC 39.220

to particular stocks represents only a "coarse approximation," and that historically, "a series of largely untested assumptions have been used to allocate stock composition."²⁵

That fact makes it difficult to assess the adequacy of current Upper Cook Inlet sockeye salmon management escapement goals as they relate to the Constitutional mandate to "conserve" the resource for future use, as well as utilize it for current benefit. Starting in 2005, ADF&G undertook development of a genetics program that shows great promise as a method for accurately identifying stock compositions of harvests of Upper Cook Inlet sockeye salmon. Unfortunately, the program is still in early stages of development and the partial data collected over the past three years will not be applied to historical harvests of UPI sockeye for some time.²⁶

Given that a major impetus for the formation of the Task Force was concern about diminishing returns of Northern District sockeye stocks to the Mat-Su Valley in recent years, a great deal of time was spent assessing that issue. Rather than summarize that discussion here, the Northern District sockeye issue is primarily dealt with separately in Section VII of this report.

It should be noted here, however, that measures taken by ADF&G to meet escapement goals for Northern District sockeye salmon have often resulted in "over-escapement" in

²⁵ *Fair, follow-up on Yentna*, 3

²⁶ *Ibid.*, 3-5

other Upper Cook Inlet sockeye stocks in the Kasilof and Kenai Rivers.²⁷ Yet those stocks nonetheless appear to be strong. If true, that fact may add credence to testimony and scientific evidence presented to the Task Force which argues that “over-escapement” does not actually present a threat to salmon stock viability or run size, but instead a benefit – by increasing the level of nutrients present in the lakes where juvenile salmon feed and thereby correspondingly increasing the carrying-capacity of those ecosystems.²⁸

According to that theory and emerging body of scientific research, as more salmon spawn and decay in the lakes, nutrients from the decaying carcasses significantly increase the capacity of the ecosystem to support additional juvenile salmon, and more young salmon survive to adulthood thus increasing the size of future runs. A recent study led by University of Alaska professor Bruce Finnley found a direct relationship between salmon derived nutrients, climate and larger salmon runs. Prof. Finnley stated:

“Higher levels of nutrients (from increased numbers of decaying carcasses) support more juvenile salmon. More younger salmon survive, and more salmon eventually come back and die, releasing more nutrients. This positive feedback can increase the carrying capacity of the freshwater system.”²⁹

²⁷ BOF, *Upper Cook Inlet Salmon Management Plans and Issues*, 5; Hilsinger, John and Swanton, Charles. *Upper Cook Inlet Management Options*, 2

²⁸ For links to research, see testimony of Krogseng, Mel, to the Salmon Task Force, May 27, 2008. See also testimony of Johnson, Don to the Salmon Task Force, May 2008 for a discussion of the topic

²⁹ Finnley, Bruce P.; Gregory-Eaves, Irene; Sweetman, Jon; Douglas, Marianne S. V.; Smol, John P.; *Impacts of climate change and fishing on Pacific salmon abundance over the past 300 years*, *Science* journal, vol. 290, 27 Oct. 2000, p. 795-99; as cited in National Oceanic and Atmospheric Administration News, Oct. 2000, <http://www.noaanews.noaa.gov/stories/s518.htm>

Such research suggests that fishery management for maximum sustained yield would require a different escapement approach than currently employed by ADF&G – one that would put significantly more fish in the rivers. While that may be true, that choice is still a policy decision because the Alaska Constitution doesn't mandate "maximum sustained yield." Instead, the guiding principle is "sustained yield" to achieve "maximum benefit" for Alaskans. That standard allows for value judgments on desired "optimum" escapement levels, rather than a management system designed purely to maximize yield – provided that the Constitutional threshold of resource "conservation" is met.³⁰

While state fishery management practices are clearly designed to satisfy the sustained yield requirement of the Constitution, based on the limited time available for review, the Task Force drew no conclusions regarding whether or not current Upper Cook Inlet salmon escapement levels are adequate to conserve all stocks. However, the Task Force heard testimony from one retired ADF&G biologist with extensive experience in Cook Inlet salmon management, who believes current policies are not adequate to conserve

³⁰ For contrasting views on state escapement policy implications for resource conservation, see Kenai Peninsula Fishermen's Association (setnet fishing assoc.), letter to the Task Force, February 11, 2009, (note: all emphasis original), "Our Organizations (sic) Goal: 'Ensuring the Sustainability of Our Fishery Resources.' What this means is we subscribe to the principles of *Maximum Sustained Yield* and to the slight variation, *Optimum Sustained Yield*. We do not agree with management that is determined by politics or social pressures. . . . The Department (ADF&G) has chosen its management of our entire State on the principles of *Sustained Escapement Goals*. This is a far departure from establishing *Biological or Maximum Sustained Yields*. This is a cost saving measure by the Department and does nothing to accomplish *High Sustained Yields*;" and see Kenai Area Fisherman's Coalition (a non-commercial fishing group, including fisheries biologists), letter to the Task Force, October 27, 2008; "We believe that habitat protection should be the primary goal . . . (and) strongly support salmon escapement goal management. This is the foundation Alaska has developed to maintain salmon resources at sustainable levels. . . . There is compelling evidence that when these goals are exceeded future yields will be reduced."

many Northern District stocks.³¹ He urged immediate legislative action to require changes to escapement policies and warned that failure to do so could result in irreversible harm to the resource and lead to future lawsuits and court injunctions that would severely disrupt fisheries management.³²

The Task Force also heard testimony from Alaska Seafood Marketing Institute (ASMI) representatives who emphasized the growing importance of “sustainability” in relation to Alaska’s ability to market its seafood products globally. ASMI Executive Director Ray Riutta stressed that sustainability of the product (resource) has become an increasingly important marketing message for ASMI. “Sourcing seafood sustainability has become more important to retailers, chefs and food service operators. It is one of our major points of differentiation . . . and distinguishes Alaska seafood from other products in the market,”³³ Riutta said. He also pointed out that Alaska’s fishery management programs meet or exceed international criteria established by the United Nations for sustainable fisheries management.³⁴

³¹ Grauvogel, Carl A., Memo and testimony to the Task Force, May 29, 2008, 1, “Rest assured sockeye, chum, and some coho stocks in northern Cook Inlet are in tough shape, and their decline is supported by many other kinds of data. Management practices must be implemented soon to prevent a population collapse that will be difficult if not impossible to reverse.”

³² *Ibid.*, 2, “Right now the highest priority goes to that species with the greatest economic impact (Kenai sockeyes) at the expense of all other salmon populations and species of salmon in Cook Inlet. Antiquated management practices, now so prevalent in Northern Cook Inlet, should no longer be tolerated. Right now, our present Cook Inlet policy does not meet our constitutional mandates to manage all species for sustained yield. If something is not done by this legislature, I predict the courts will soon be issuing injunctions that could throw Cook Inlet salmon management into complete chaos.”

³³ Riutta, Ray, Ex. Dir. ASMI, testimony to the Task Force, October 9, 2008, 1

³⁴ *Ibid.*, 2-3

But in 2007, a five-year reassessment study of Alaska salmon management policies commissioned by ADF&G³⁵ found that current escapement and management policies for some UCI salmon stocks may not be sufficient to ensure continued certification as “sustainable” according to standards established by the international Marine Stewardship Council (MSC).³⁶ While the assessment study resulted in renewed MSC certification of Alaska salmon products for an additional five years, and awarded high marks to Alaska salmon management practices generally, the study identified some serious concerns with regard to management of UCI mixed stocks and Northern District sockeye in particular.

The report noted that “Management decisions in Upper Cook Inlet are heavily influenced by a subset of stocks, particularly the large productive Kenai and Kasilof sockeye runs.”³⁷

The review found that:

“Scientifically defensible productivity estimates have been derived for some but not all target stocks. Stock-recruitment data based on run reconstructions is adequate to identify biological or sustainable escapement goals for most sockeye and chinook stocks. However, information is incomplete or lacking on the productivity of some key stocks including Susitna sockeye, Kasilof chinook, and coho. Risk assessments have considered uncertainty in productivity but formal assessments have concentrated on key fishery stocks. For instance, management considerations in recent years have included a substantial

³⁵ Scientific Certification Systems Inc., Marine Fisheries Conservation Program, *Final Report: The Commercial Alaska Salmon Fisheries Managed by the Alaska Department of Fish and Game A 5-Year Re-Assessment Based on the Marine Stewardship Council Program*, October 30, 2007, 149, sec. 1.1.2.4

³⁶ The Marine Stewardship Council is the world’s leading certification and ecolabelling program for sustainable seafood. See <http://www.msc.org/about-us>

³⁷ *Ibid.*, 148, 1.1.1.4

focus on productivity concerns associated with exceeding the upper end of Kenai and Kasilof sockeye escapement goals.”³⁸

Of particular significance, the MSC compliance assessment determined that UCI Northern District Yentna sockeye met MSC’s operational definition of a “depleted stock” based on the stock’s repeated inability to meet minimum escapement goals in recent years.³⁹ The study noted that “failure to meet the minimum escapement goal for this stock is particularly concerning because goals have been reduced on two previous occasions.”⁴⁰ As a condition of continued MSC certification, the report required ADF&G to review the status of Susitna sockeye stocks and develop an action plan “intended to ensure achievement of Susitna sockeye escapement goals,” including articulation of “specific goals” and a “timeline for achieving those goals.”⁴¹

The report emphasized that “the fact that Yentna sockeye have apparently declined during a period of favorable ocean productivity could be indicative of changes in local productivity in the Susitna system, problems with the assessment methods, a fishery effect. Any of these causes could be construed as a basis for significant concern from the standpoint of stock sustainability.”⁴²

³⁸ *ADF&G 5-Year MSC Re-Assessment*, 149, sec. 1.1.2.4

³⁹ *Ibid.*, 150, 151. At the time of the study, the Yentna sockeye stock had missed ADF&G sustainable escapement goals (SEGs) in 4 of the previous 5 years. Counting this year, the Yentna sockeye stock has failed to meet minimum escapements in 5 of the past 8 years, including barely meeting the minimum in 2008 by the narrowest of margins (minimum SEG: 90,000; 2008 escapement: 90,143)

⁴⁰ *ADF&G 5-Year MSC Re-Assessment*, 150-151, sec. 1.2.1

⁴¹ *Ibid.*, Condition 37, 151

⁴² *Ibid.*, 152

In February 2008, the Alaska Board of Fisheries designated Susitna (Yentna) sockeye salmon as a stock of “yield concern” which is defined as “a concern arising from a chronic inability, despite the use of specific management measures, to maintain expected yields, or harvestable surpluses, above a stock’s escapement needs.”⁴³ It should be noted that the designation of a “yield of concern” by the BOF is the lowest “level of concern” of three potential levels that may be applied to a struggling stock.⁴⁴ Under the Alaska Sustainable Salmon Fisheries Policy (SSFP), a stock is not considered a “depleted stock” until it has been designated with the highest level of management concern – a “conservation concern” – which arises only when there’s a demonstrated chronic inability to maintain escapements above a “sustained escapement threshold” (SET).⁴⁵ A SET is defined as a minimum threshold level of escapement, below which the ability of the salmon stock to sustain itself is jeopardized.⁴⁶

But as the MSC compliance assessment pointed out, no sustainable escapement thresholds, or SETs, have ever been established for any Alaska salmon stock and therefore “conservation concerns have never been formally recognized by the management system.”⁴⁷ The MSC assessment noted the lack of SETs has been driven partially by a lack of scientific data, but also by “a belief system within the management

⁴³ 5 AAC 39.222(f)(42)

⁴⁴ *Ibid.*, “A yield of concern is less severe than a management concern, which is less severe than a conservation concern.”

⁴⁵ 5AAC 39.222(f)(6-7)

⁴⁶ *Ibid.*, (f)(39)

⁴⁷ *ADF&G 5-Year MSC Re-Assessment*, 150, sec. 1.2.1

agency (ADF&G) that conservation risks of overfishing are practically nil for salmon stocks where the habitat is intact.”⁴⁸

While the MSC compliance report noted that ADF&G believes its management and assessment programs are adequate to assure the long-term biological characteristics and reproductive capacity of UCI salmon stocks, it nonetheless expressed some concern on those points. The report stated that “given the intensive nature of UCI fisheries, it is unclear whether management actions are adequate for the health of all target stocks relative to biological characteristics such as age, size, sex and genetic structure.”⁴⁹ It pointed to the potential of high UCI harvest rates to negatively impact the diversity and productivity of the stocks in the future,⁵⁰ and again expressed concern regarding ADF&G management philosophy stating:

“Of particular concern to the reviewers has been a prevailing belief in the management system that fisheries cannot pose a significant risk to salmon sustainability where habitats are intact. Until this belief has been thoroughly vetted, documented, and published in the scientific literature, this review must continue to treat this view as an untested hypothesis.”⁵¹

Whether or not those statements fairly characterize ADF&G policies, the report’s conclusion that based on MSC standards Susitna sockeye are a “depleted stock” should

⁴⁸ *Ibid.*, sec. 1.1.3.1

⁴⁹ *Ibid.*, 152, sec. 1.3.1

⁵⁰ *Ibid.*, 152-153, “Salmon conservationists have increasingly recognized the close relationship between diversity and productivity. All of this adds up to a real, albeit theoretical risk that intensive fisheries could exert a directional selective pressure which, over a period of time, could alter the genetic composition and performance of a stock.”

⁵¹ *Ibid.*, 153

be cause for serious concern by state policy makers and fishery managers. Given the Alaska Constitutional mandate for “conservation” of state resources; and ASMI’s increasing reliance on “sustainability” as a key marketing tool for Alaska’s seafood products, it’s imperative that steps be taken to ensure the sustainability of Susitna sockeye salmon stocks.

The BOF’s 2008 designation of the Susitna stock as a “yield of concern” formally initiated that process. But it’s not evident that ADF&G’s *Susitna Sockeye Salmon Action Plan*⁵² (*Susitna Plan*) adopted in response to the BOF action is adequate to comply with either state law or MSC requirements regarding stocks where there is a concern.

Both state law and MSC standards require development of an action plan that outlines specific goals and corrective actions, along with performance measures to determine the plan’s effectiveness and progress.⁵³ The *Susitna Plan* contains few of those elements and fails to list any specific goals, timelines, or performance measures. It also largely fails to address critical habitat restoration and protection issues, including one major problem – how to effectively deal with invasive species predation (northern pike) in Susitna salmon spawning areas. Given those significant omissions, the *Susitna Plan* may

⁵² ADF&G, *Susitna Sockeye Salmon Action Plan*, February 2008

⁵³ 5 AAC 39.222(d)(4),(5); ADF&G *5-Year MSC Re-Assessment*, 151, Condition 37, “Review stock status of Susitna sockeye and develop an action plan intended to ensure achievement of Susitna sockeye escapement goals. Action plan should provide specific goals and an anticipated timeline for achieving the goals.” See also *Ibid.*, 216, sec. 12, “An Action Plan (was) submitted by ADF&G and approved (during the 2007 MSC recertification review)”

not satisfy legal requirements established in Alaska's *Sustainable Salmon Fisheries Policy*, or meet conditions necessary for continued MSC certification.

For many on the Task Force, it became clear that ADF&G's *Susitna Plan* in its current form is inadequate to address a critical resource conservation issue that affects a large and growing segment of Alaska's population. Without articulation of specific goals and specific actions for achieving them, the plan is ambiguous and lacks focus. Without inclusion of performance measures and firm timelines, the plan's effectiveness will be impossible to measure. Without greater focus on habitat restoration and protection, the plan is arguably negligent.

In sum, it appears that ADF&G's *Susitna Plan* essentially constitutes more of a "research plan" than the "action plan" envisioned and mandated by Alaska's *Sustainable Salmon Fisheries Policy*.

Upper Cook Inlet Salmon Allocations: Achieving "Maximum Benefit" for Alaskans

Legal Framework:

The Alaska Constitution requires that state fishery resources be utilized in a manner that maximizes both their use and benefit to Alaskans.⁵⁴ But the Constitution offers no guidance on exactly what that means. State statutes do however. AS 16.05.251 establishes guidelines for the Board of Fisheries to follow when adopting regulations and allocating fishery resources. It requires that BOF regulations be consistent with the sustained yield principle and "provide a fair and reasonable opportunity for the taking of fishery resources by personal use, sport, and commercial fishermen."⁵⁵ AS 16.05.251(e) gives the BOF authority to allocate fishery resources, mandates that the BOF adopt criteria for fishery allocations,⁵⁶ and lists factors that may be considered by the BOF in adopting criteria. Those factors include:

1. the history of each personal use, sport, guided sport, and commercial fishery;
2. the number of residents and nonresidents who have participated in each fishery in the past and the number of residents and nonresidents who can reasonably be expected to participate in the future;
3. the importance of each fishery for providing residents the opportunity to obtain fish for personal and family consumption;
4. the availability of alternative fisheries resources;
5. the importance of each fishery to the economy of the state;

⁵⁴ Constitution, Art. VIII, Secs. 1 & 2

⁵⁵ AS 16.05.251(d)

⁵⁶ AS 16.05.251 (e) states in part: "The board *shall* adopt criteria for the allocation of fishery resources and *shall* use the criteria as appropriate to particular allocation decisions." (emphasis added)

6. the importance of each fishery to the economy of the region and local area in which the fishery is located; and
7. the importance of each fishery in providing recreational opportunities for residents and nonresidents.⁵⁷

With more than half of the state's population bordering Upper Cook Inlet, and a well-established commercial fishery in the region, all of those factors should come into play. Unfortunately, the Board of Fisheries has never adopted any criteria for fishery allocations – despite the fact that the legal requirement to do so has been in place since 1986.⁵⁸ That fact alone argues for continued legislative inquiry into the Cook Inlet salmon allocation process.

Summary of Discussion:

During the course of its meetings, the Task Force heard heart-felt testimony from groups and individuals on many sides of the allocation issue. Advocates of sportfishing presented data on Alaska's growing population concentration in Southcentral Alaska and the Mat-Su Valley and pointed to the importance of Cook Inlet for both sportfishing recreational opportunities and access to Alaska's seafood resource for a majority of the Alaska public.⁵⁹ They presented economic data demonstrating the significant economic

⁵⁷ AS 16.05.251(e): "The Board of Fisheries may allocate fishery resources among personal use, sport, guided sport, and commercial fisheries. The board shall adopt criteria for the allocation of fishery resources and shall use the criteria as appropriate to particular allocation decisions."

⁵⁸ Instead, in various regulations dealing with salmon regulations, the BOF has simply cross-referenced AS 16.05.251 and stated: "Before adopting regulations that allocate fish among personal use, sport, and commercial fisheries, the board will, as appropriate to particular allocation decisions, consider factors such as those set out in AS 16.05.251 (e)."; 5 AAC 39.205; 5 AAC 39.220; 5 AAC 75.017; 5 AAC 77.007

⁵⁹ See for example, Kenai River Sport Fishing Association, *Executive Summary, Economic Values of Sport, Personal Use, and Commercial Salmon Fishing in Upper Cook Inlet*, January 2008, ES 3-5. See also Kluberton, Tom, Chair Matanuska-Susitna Mayor's Blue Ribbon Sportsmen's Committee, *Letter to The*

value of the Cook Inlet sport fishery and its growing importance to statewide tourism⁶⁰; as well as comparative data showing that allocations of salmon harvests for sportfishing in Alaska are much lower than allocations for sportfishing in other salmon fisheries in the Northwest and Canada.⁶¹ Representatives of dip-net organizations pointed out that they are technically neither “sport” nor “commercial” and argued for fairer allocations for their rapidly growing segment of the fishery.⁶² Cook Inlet commercial fishing organizations stressed the historical significance of commercial fishing to the Kenai Peninsula and its continuing major economic impact on the region and commercial fishing families.⁶³ They also pointed to the interdependency of commercial fishing and sportfishing in relation to stock escapement goals set by fisheries managers to ensure sustainable runs.

The discussion was at times heated, but most often meaningful – with well prepared presentations and testimony designed to educate the Task Force on various aspects of this complex issue. Every member of the Task Force was appreciative of the significant time

Joint Legislative Cook Inlet Salmon Task Force, through Menard, Curt, Mayor Matanuska-Susitna Borough, December 5, 2008

⁶⁰ *KRSA Executive Summary*, ES 7-10, 12. For a detailed and thorough analysis see also, Southwick Associates, Inc., et al., *Economic Impacts and Contributions of Sportfishing in Alaska*, ADF&G Prof. Pub No. 08-01, 2007, 90-100

⁶¹ *KRSA Executive Summary*, ES 11, “Commercial fisheries are allocated about five-sixths (82%) of the Upper Cook Inlet salmon harvest, while sport, personal use, and subsistence fisheries are allocated about one-sixth (18%) of the catch. The percentage of the total salmon harvest that is allocated for recreational use in British Columbia is 11%, in the Pacific Northwest it is 4%, and in Alaska it is 2%.”

⁶² Gease, Denise, Vice Pres. South Central Alaska Dip-netters Association, Testimony to Task Force, May 22, 2008, “Last year . . . 20,000 permits (were) issued . . . and over 80,000 Alaskans (were) involved in this very popular and growing fishery.”

⁶³ United Cook Inlet Drift Association (UCIDA), *Proposed Findings for the Upper Cook Inlet Joint Legislative Task Force*, May 22, 2008, 3-4. See also Northern Economics, *The Seafood Industry in Alaska's Economy*, 48-52

and sincere effort put in by the groups and individuals who participated. For that, we would like to extend our sincere thanks.

Key Facts and Considerations:

While the Task Force had no time to deliberate on Cook Inlet allocations, some facts regarding Upper Cook Inlet salmon allocations became evident:

- Undeniably, both the sport and commercial salmon fisheries have a significant economic impact on the region and Alaska;⁶⁴
- Each has a long history in the area and are composed of both residents and non-residents;
- Alaska's commercial salmon fishing industry has struggled in recent years with overcapitalization; globalization of markets and increased international competition from farmed salmon, the resulting decline in prices; rising fuel costs; and the overall devaluation of commercial salmon fishing permits – all factors that have created increased economic pressure on commercial fishermen and their families;
- Major allocative adjustments therefore have the potential to threaten the continued economic viability of some segments of the UCI commercial salmon fishing industry;
- Upper Cook Inlet commercial salmon fishing harvests represent only 2% of the total annual Alaska commercial salmon harvest⁶⁵
- More than half of Alaska's population is heavily dependent on the UCI fishery for reasonable access to state salmon fishery resources and recreational opportunities;
- The UCI salmon fishery is critical to the ability of a majority of state residents to obtain salmon for personal use and family consumption;

⁶⁴ Economic impacts are discussed in the next section of the Task Force report

⁶⁵ *KRSA Executive Summary*, ES 6

- Some UCI salmon stocks are managed primarily for sport, while others are managed primarily for commercial use to provide economic benefit to commercial fishermen;⁶⁶
- Sockeye salmon are by far the most plentiful of Upper Cook Inlet salmon species, making up 83% of the total salmon run – while Chinooks (Kings) and Cohos (Silvers) combined constitute less than 10%;⁶⁷
- Sockeye salmon represent by far the largest single component of the UCI commercial harvest, constituting roughly 93% of the total commercial harvest value⁶⁸
- Approximately 18% of total Upper Cook Inlet salmon harvests are allocated to sport and personal use fisheries, while 82% of the salmon harvest is allocated to the commercial fishing industry;⁶⁹
- 97% of the Northern District Susitna Sockeye salmon are harvested by commercial fishermen and only 3% by sport⁷⁰

Applying Maximum “Use” and “Benefit” Principles to Cook Inlet Allocations:

It’s no surprise that Cook Inlet salmon allocations are commonly referred to as “salmon wars” in the increasingly populated region. With approximately 61 percent of the state’s population living along its shores,⁷¹ Upper Cook Inlet is the primary marine resource

⁶⁶ See ADF&G management plans, 5AAC 21.358-60; UPI Chinooks (Kings) and Cohos (Silvers) are managed primarily for sport use, while Sockeyes (Reds) are managed primarily for commercial value

⁶⁷ *KRSA Executive Summary*, ES 11, Fig. ES 15 (citing ADF&G, 2007: 2002-2006 UCI salmon run averages). Based on the numbers presented in the chart, Silvers constituted roughly 7.5% and Kings 1.7% of the total salmon run in UCI during those years (9.2% combined).

⁶⁸ *Ibid.*, ES 1; UCI commercial harvest values of other salmon species include: Coho (3%), Chinook (3%), Chum (.5%) and Pink (.5%).

⁶⁹ *Ibid.*, ES 11

⁷⁰ Rutz, David, ADF&G Sport Division, *Management and Stock Status of Northern and Western Cook Inlet Sport Fisheries, A Report to the Legislative Salmon Task Force*, June 25, 2008, 21

⁷¹ US Census Bureau 2007 estimates project the total Alaska population at 683,478, with the UCI Region representing 415, 437 of that figure – or .6078%. US Census 2007 population estimates for the various components of UCI population are: Anchorage, 279, 671; The Kenai Peninsula Borough, 53, 097; The Mat-Su Borough, 82,669.

available to most Alaskans. To the extent demand for the state's salmon resource exceeds supply – which it has since statehood – one user's gain is another potential user's loss.

But the Constitution makes it clear that fishery managers must balance competing interests to achieve two things: 1) maximum sustainable "use" of the resource; and 2) maximum "benefit" for Alaskans. The challenge is determining exactly which combination of potential beneficial uses will "maximize" both the use and benefit – without jeopardizing the resource. The task is even more difficult because the terms "maximum use" and "maximum benefit" are not strictly defined in the Constitution – and thus are open to various interpretations.

For example, Art. VIII, Sec. 1 states that the policy of the state is to encourage "maximum use" of state resources, "consistent with the public interest." While that section doesn't require use exclusively by state residents, it's not clear exactly what would constitute "maximum use." Is the phrase intended to suggest that use is "maximized" in strictly economic terms when the highest percentage of the yield is harvested, or alternatively from a socio-economic perspective when the greatest number of Alaskans are able to enjoy and "utilize" the resource? The final clause of that section of the Constitution which qualifies that uses must be "consistent with the public interest" suggests the framers intended the meaning to be interpreted broadly, encompassing both quantifiable "economic" uses and intangible, noneconomic or recreational uses – irrespective of whether the resource's yield is fully harvested.

Similarly, Sec. 2 of Article VIII mandates that natural resources be utilized in a manner that produces “maximum benefit” for Alaskans. Many have interpreted that as being equivalent to “maximum economic benefit” and have relied heavily on economic impact studies to demonstrate their use of the resource produces the greatest benefit for Alaska and is therefore deserving of the largest share. But while economic benefit is obviously a key component of any “maximum benefit” equation, the framers clearly did not intend economics alone to be determinative. If they had, they could have easily included the word “economic” in the “maximum benefit” language of Section 2.

Again, a reasonable interpretation of the inclusive wording of the Constitution suggests the framers intended something more “equitable” and encompassing to be the framework for allocative decisions – not merely objective economic data alone. That interpretation is supported by other sections of the Constitution that specifically reserve fish resources for the “common use”⁷² and prohibit creation of an “exclusive right or special privilege of fishery.”⁷³

The distinctions are not trivial, because combined they suggest the intent of the framers to have fishery allocative decisions based broadly on a multitude of factors, some economic, some socio-economic, in order to create the greatest benefit for Alaskans. That’s not surprising, given the important historical context at the time the Constitution was drafted, a period when many Alaskan salmon stocks were severely depleted and on

⁷² *Constitution*, Art. VIII, Sec. 3

⁷³ *Ibid.*, Sec. 15

the verge of extinction because of overexploitation by outside commercial interests who had monopolized the resource during Territorial days.

Historical Context: The Origins of Alaska Salmon Allocation Policy⁷⁴

By the late 1800s, salmon stocks in the Pacific Northwest had been depleted to the point that large West Coast canning companies began establishing canneries in Alaska. The salmon industry quickly became Alaska's largest industry and by the turn of the century, almost fifty canneries were in operation.⁷⁵ At one point, taxes on the canning industry accounted for 75 percent of all taxes collected in the Territory.⁷⁶ Most cannery owners and workers were nonresidents and much of the harvest was caught in large fish traps owned directly by the processors.⁷⁷

From the purchase of Alaska until statehood, regulation of salmon fisheries was managed by the federal government. But despite passage of early laws designed to conserve the resource,⁷⁸ the efficiency of the fish traps combined with lax federal regulation and enforcement led to problems within decades. Record harvests in the late 1930-40's were

⁷⁴ For an excellent, brief overview of the history of the commercial salmon fishing industry in Alaska, see Northern Economics, *The Seafood Industry in Alaska's Economy*, 11-12

⁷⁵ Fried, Neal, "Alaska Seafood Processing – A Growing Job Source?", *Alaska Economic Trends*, March 1996, 1

⁷⁶ *Ibid.*

⁷⁷ *Ibid.*; For a great discussion of fish traps and the resentment of Alaskans to them, see King, Robert, *Sustaining Alaska's Fisheries: Fifty Years of Statehood: part 2 of 10*, for ADF&G, Feb 2009, 4-5

⁷⁸ Kruse, Gordon, et al., *Overview of State-Managed Marine Fisheries in the Central and Western Gulf of Alaska, Aleutian Islands, and Southeastern Bering Sea, with Reference to Steller Sea Lions*, ADF&G Regional Information Report 5J00-10, October 2000, 62, "The White Act, passed in 1924, required fishing seasons, a mandatory 36-hour weekly closed period, and maintenance of escapement levels at 50% of the run."

followed by rapid and dangerous declines in salmon stocks.⁷⁹ By 1953 stocks had become so depleted that President Eisenhower declared Alaska a federal disaster area. About the same time, a new international treaty designed to help Japan rebuild after World War II allowed Japanese fishing fleets to operate in the Bering Sea and western Aleutians, where they began to intercept tens of millions of Bristol Bay bound salmon – further infuriating Alaskans.⁸⁰ In addition, the total statewide salmon harvest in 1959 amounted to only 25 million fish – about twenty percent of current yields.⁸¹ So by the mid-1950s, the desire by Alaskans to control management of their salmon resource and concerns over the sustainability as one of Alaska's leading industries became a driving force in the push for statehood.⁸²

A recent publication by ADF&G notes that “Alaska's dwindling salmon runs and longstanding resentment over fish traps combined in 1955 when delegates from across Alaska came together to write a state constitution.”⁸³ Former Governor Ernest Gruening delivered an opening keynote speech in which he “offered an obituary on the salmon industry” and blamed the federal government for “colonialism” that had both

⁷⁹ *Ibid.* “Enforcement of regulations was ineffective or non-existent. Stock assessment programs to monitor escapement were poorly funded and generally not available to ensure that the 50% escapement objectives were achieved. In addition, regulatory actions required secretarial level approval and implementation of regulations to close fisheries often occurred too late to effect conservation.”

⁸⁰ King, ADF&G, 2-3

⁸¹ *Ibid.*, 3

⁸² *Ibid.*, 1-3

⁸³ *Ibid.*, 2

“disregarded the interest of the people of Alaska . . . and preferred to conserve the power of . . . a politically potent absentee industry.”⁸⁴

After statehood, Alaska took over control of fisheries management. Fish traps were quickly banned and a new management system was designed and put in place to ensure both resource sustainability (by guaranteeing adequate escapement) and fair allocations to various Alaskan user groups.⁸⁵ As ADF&G has recently stated:

“The work produced by 55 Alaskans that winter later became regarded as a model constitution and it uniquely included key provisions intended to preserve Alaskan fisheries: reserving fish as a common property resource, providing for principles of sustained yield management, and prohibiting any exclusive right of fishery.”⁸⁶

Analysis of the Fairness and Constitutionality of Current Cook Inlet Salmon Allocations:

It’s clear from both the language of the Constitution and from the historical context, that the framers intended allocations of state fishery resources to benefit Alaskans in the broadest sense possible. Concern for the sustainability of salmon resources was a primary consideration. But so too was the principle that the resource belonged to all

⁸⁴ *Ibid.*

⁸⁵ Woodby, Doug, et al., *Commercial Fisheries in Alaska*, ADF&G, Special Publication 05-09, June 2005, 4-5, “Local fisheries managers are given authority to open and close fisheries to achieve two goals: the overriding goal is conservation to ensure adequate escapement of spawning stocks, and the secondary goal is allocation of fish to various user groups based on management plans developed by the Alaska Board of Fisheries.”

⁸⁶ King, ADF&G, 2

Alaskans equally, for their common use. The framers clearly intended that the benefits should not be reaped by only a few, to the detriment of the many – as had been the case during Territorial days.⁸⁷

Analyzing current allocations of Upper Cook Inlet salmon, it appears that important lessons of the past may not have been heeded, nor constitutional mandates followed. Currently 82% of the total Upper Cook Inlet salmon harvest is allocated to less than 1% of the region's population – those who hold commercial fishing permits.⁸⁸ 93% of the total \$20 million economic value of the commercial salmon harvest⁸⁹ is sockeye salmon. Thus 99% of all potential Cook Inlet salmon resource "users" are awarded only 18% of the total harvest – and only a fraction of the resource's overall direct economic value.⁹⁰

⁸⁷ Hence the strong language of Art. VIII, Sec. 15: "No exclusive right or special privilege of fishery shall be created or authorized in the natural waters of the State."

⁸⁸ That percentage is derived by taking the US Census Bureau estimated 2007 total UCI region population (415,437) and subtracting the number of Alaskans who reside in households that hold UPI commercial fishing permits (2,667). The latter figure is based on the total number of UCI commercial fishing permits issued to residents in 2007 (618 setnet; 401 drift - for a total of 1018) multiplied by the 2.62 average persons per household in the Kenai Peninsula Borough. Thus, the 2,667 Alaskans in households with UCI permits represent .006% of the region's population, or less than 1%

⁸⁹ This figure refers to the ex-vessel value of the salmon product itself, not the total economic value to the region or state generated by UCI commercial fishing. ADF&G put the 2008 UCI sockeye salmon ex-vessel value at approximately \$18 million representing 92.5% of the total UCI commercial salmon harvest value (\$19.7 million). Source: ADF&G News Release, 2008 Upper Cook Inlet Salmon Fishery Summary, November 26, 2008, 2

⁹⁰ Sockeye salmon represent 83% of the total population of salmon in runs in Upper Cook Inlet. Based on 2008 ex-vessel values, the wholesale value of the 15% of that species allocated to sport/personal use is approx. \$3.2 million, while the value of the allocation to commercial fishing is approx. \$18 million. Most of the UCI sockeye fisheries are managed by ADF&G primarily for the 'economic benefit of commercial fishermen.' See 5 AAC 21.358(a); Hilsinger, John, Dir. Div. of Commercial Fisheries, ADF&G, PowerPoint presentation, *Legislative Task Force Overview of Upper Cook Inlet Salmon Management & Management Plans*, May 2008, 15-16, 20; "Sockeye, chum, and pink salmon stocks, which move through UCI (mid-July to Aug), will be managed primarily for commercial uses."

It's difficult to envision what criteria the Alaska Board of Fisheries applied in making those allocations. For although the BOF has never adopted specific criteria for fishery allocations as required by statute, it's hard to conceive that any objective application of criteria similar to those articulated in AS 16.05.251(e) would result in a division of the Upper Cook Inlet salmon resource remotely resembling the current 82/18 split between commercial and sport/personal use fisheries. As will be discussed in the next section of the Task Force Report, the economic benefit to Alaska from each user group is significant – but decidedly in favor of sport and personal use fisheries by a ratio of at least 6-1.

Consideration of the factor “the number of residents and non residents who participate in each fishery,” also favors the sport/personal use fisheries – by a very wide margin. On that issue there is no doubt – as the ratio is a stunning 40-1. There was a total of 475,534 sport fish licenses issued in 2007.⁹¹ Of that figure, 190,644 were Alaskan residents and 71% of them lived in Southcentral Alaska (134,415).⁹² Combined with the 20,000 personal use dip net permits issued for Southcentral, that brings just the Alaskan participation in the sport/personal use segment of the Cook Inlet fishery to over 150,000 individuals⁹³ – with more than double that number of “potential users” based on current

⁹¹ Southwick Associates, Inc., et al., xiii

⁹² *Ibid.*

⁹³ That figure does not even include children under the age of sixteen who are not required to be licensed.

populations in the region. In addition, in 2007 there were 284,890 nonresident sport anglers who spent 45% of their total fishing days participating in Cook Inlet fisheries.⁹⁴

The Upper Cook Inlet commercial salmon fishing industry by contrast has approximately 1,300 permit holders, representing fewer than 3000 Alaskans.⁹⁵ In addition, it's estimated that there are between 1,375 and 8,000 individuals employed in harvesting or processing seafood (all species) in the Southcentral commercial fishing industry,⁹⁶ although many of those are seasonal jobs held by nonresidents,⁹⁷ and many are outside of Cook Inlet.⁹⁸ Even so, using the highest available employment estimates and counting all individuals directly involved in commercial salmon harvesting in Upper Cook Inlet or in seafood processing in all of Southcentral, the total possible commercial fishing

⁹⁴ Southwick, Associates, Inc., et al., xiv Table E4, xx, 157 Appendix D1 (map); Note: The Southwick sub-region for Cook Inlet includes all fisheries in Cook Inlet, including Lower Cook Inlet fisheries below Anchor Point (i.e.: Homer) which are not part of UCI salmon allocations.

⁹⁵ Figure = total UCI resident commercial salmon permit holders (1018 in 2007) x 2.62 average household size (US Census 2007 estimate) for a total of 2,667 individuals. UCI commercial fishing permit data from State of Alaska, Commercial Fisheries Entry Commission, Permit Statistics For Alaska's Upper Cook Inlet Drift and Set Gillnet Participation, Salmon Fisheries 1995-2007, table prepared by research staff at the request of Joint Cook Inlet Salmon Task.

⁹⁶ *KRSA Executive Summary*, ES 6, puts the total employment figure attributable to the UCI commercial salmon industry at 1,375-2,500; while Northern Economics, Inc., 51 Fig. 46, depicts the equivalent of roughly 8,000 individuals (7995 at 16.5% of total statewide workforce) employed in all seafood harvesting and processing jobs in "Southcentral" Alaska. However, that figure would include harvesters and employees of processors outside of the Cook Inlet region.

⁹⁷ Northern Economics, Inc., 56, 57 Fig.51, "Residents account for 30 percent of the seafood processing labor, 70 percent of seafood harvesting labor, and 48 percent of total workforce in the Alaska seafood industry."

⁹⁸ The Northern Economics study does not break out employment numbers for the Cook Inlet Region, or the workforce for just the commercial salmon industry. As a result its much higher overall employment number for the Southcentral Region includes workers harvesting and processing all seafood species (i.e.: shellfish, salmon, halibut, rock fish, etc.) and in areas that are outside the UCI region (i.e.: Prince William Sound and Northern Gulf of Alaska; or Valdez, Cordova, Seward, Whittier, etc.).

industry participation in the Upper Cook Inlet salmon fisheries is less than 7,000 individuals.⁹⁹

Contrast that number with just the 150,000 Alaskans who participate in the sport/personal use segment of the Cook Inlet fishery and the ratio is over 21-1 in favor of sport/personal use. Add in nonresident sportfishing participation in Cook Inlet Fisheries of at least 127,061¹⁰⁰ and the ratio is over 40-1 in favor of sport/personal use utilization of the resource.¹⁰¹

Yet the commercial fishing industry – representing at most 2.3% of those participating in the Upper Cook Inlet salmon fishery – is allocated fully 82% of the harvest.¹⁰²

Based on that fact alone, the current UCI salmon allocations seem disproportionately biased in favor of a tiny segment of the resource's users. Moreover, because of the extreme disproportionality of allocations between user groups, it's arguable that current

⁹⁹ Figure = roughly 6,664 individuals. That amount is equal to 3,000 Alaskans in UCI permit holding households plus the Northern Economics high estimate of 8,000 total workers in the entire Southcentral seafood industry (harvesting and processing/all species); minus the 1,018 Alaskan UCI salmon permit holders already counted as part of the "3,000 Alaskans" and minus harvesters outside of Upper Cook Inlet (3,318 total harvesters; 1,106 permit holders/2,200 crew). Roughly half of those permits fish species other than salmon. Thus, even counting every processing employee in Southcentral including areas outside of Cook Inlet (i.e.: Valdez, Cordova, Homer, etc.), the total possible seafood industry employment for the Upper Cook Inlet salmon industry is under 7000 total. Source: Alaska Limited Entry Commission.

¹⁰⁰ According to the Southwick study 66% of all nonresident fishing days and 70% of all nonresident spending took place in Southcentral. Moreover, the study found that 44.6% of all nonresident fishing days were spent in Cook Inlet. So it's reasonable to assume at least 45% of nonresident licensed anglers fished in Cook Inlet at some point (4.6% of 284,890 nonresident anglers = 127,061). See Southwick, Associates, Inc., et al., xiv, xx, 157 Appendix D1 (map)

¹⁰¹ Figure = 150,000 resident + 127,061 nonresident sport/personal use anglers divided by 6,664 commercial fishing participants (residents + nonresidents). The ratio does not even include sportfishing anglers under the age of 16 not required to have a license.

¹⁰² Figure = UCI commercial fishing permit figures, their families, plus employees of harvesting and processing (res and non res) as a percentage of total UCI sport/per use and commercial "users" combined

UCI salmon allocations violate Article VIII, Section 15 of the Alaska Constitution which specifically prohibits creation of an “exclusive right or special privilege of fishery.”

But in addition to “economic” and “participation” considerations, AS 16.05.251(e) lists three additional factors that may also be considered in making salmon allocations. Those are: 1) the importance of each fishery for providing residents the opportunity to obtain fish for personal and family consumption; 2) the availability of alternative fisheries resources; and 3) the importance of each fishery in providing recreational opportunities for residents and nonresidents. Again, based on each of those criteria, it seems that sport and personal use should be assigned a higher allocation priority than they currently receive in the Upper Cook Inlet salmon fisheries.

For a majority of Alaskans the Upper Cook Inlet fisheries offer the only cost-effective opportunity to obtain salmon for personal and family consumption. Given the current dangerous economic climate, such “personal use” of the resource should be given a high priority by the BOF. To the extent Alaskans are able to fill their freezers with salmon, they will be better able to feed their families – and weather tough economic times. A high prioritization of “personal use” is also entirely consistent with the historic reliance by Alaskans on local fish and game resources as a primary food source. With escalating fuel prices and worsening economic conditions, Alaskans find themselves increasingly dependent on access to local fish and game resources as a means to feed their families – just as in Territorial days when access to outside food sources was generally difficult and expensive. Expanded allocations of Cook Inlet salmon for sport/personal use would

provide Alaskans with an opportunity to “use” the resource in its most inclusive, expansive, and “beneficial” way – to put food on the tables of hundreds of thousands of Alaskan families.

Consideration of the last allocation factor: “the importance of each fishery in providing recreational opportunities for residents and nonresidents,”¹⁰³ should likewise indicate a much greater allocation of Upper Cook Inlet salmon for sport fishing purposes. The Upper Cook Inlet salmon fisheries are not only the primary recreational fishing opportunity available to over half of the state’s population, but increasingly a key component of Alaska’s growing tourism industry, with 60% of all state fishing licenses in 2007 issued to nonresidents.¹⁰⁴ The attraction of salmon fishing is clearly a major factor that draws tourists and their dollars to the state.¹⁰⁵ For most Southcentral Alaskan families, “recreational and sport fishing opportunities” is synonymous with participating in the Upper Cook Inlet salmon fisheries.

The Task Force heard arguments that the current UCI allocation structure takes those factors into account. Some noted that the primary beneficiaries of the Kasilof and Kenai sport/personal use salmon harvests are Alaskans from outside the Kenai Peninsula, who reside in Anchorage and the Mat-Su Valley.¹⁰⁶ While that may be true, the argument

¹⁰³ AS 16.05.251(e)(7)

¹⁰⁴ Southwick Associates, Inc., et al., xiii

¹⁰⁵ In 2007, nonresident anglers spent \$428 million during trips to Alaska. Source: Southwick Associates, Inc., et al., xix

¹⁰⁶ Maw, Roland, Ex. Dir. United Cook Inlet Drift Association, *Letter to the Legislative Task Force*, January 23, 2009, 1; “The residents of the Anchorage and Matanuska-Susitna Basin are the major harvesters of Kenai and Kasilof sockeye salmon. Combined harvest levels in the personal use and sport

fails to address the central issue of whether or not the overall allocation of Upper Cook Inlet salmon resources is fair. The fact that residents of Anchorage and the Mat-Su benefit from sharing in the 18% of the harvest allocated for sport/personal use, does not mean that the current 82/18 split between commercial and sport/personal uses is fair.

Moreover, in Mat-Su Valley fisheries the harvest allocation disparity is even more pronounced. 97% of the sockeye harvest is taken by commercial fishermen and only 3% by sport.¹⁰⁷ In addition, recent conservation concerns have resulted in no Northern District "personal use" fishery for a decade and sockeye retention restrictions on Mat-Su Valley sport fishermen in four of the past five years.¹⁰⁸ To suggest that the 83,000 Alaskans who live in the Mat-Su Valley are provided a reasonable opportunity to "participate" in the use of the UCI salmon resource by traveling hundreds of miles to the Kenai Peninsula to share in the limited sport/personal use allocation there; while at the same time up to almost 60% of their native Susitna Valley sockeye run each year is harvested by Kenai commercial fishermen is, at best – unconvincing.¹⁰⁹

fishery approach 400,000-500,000 fish and most of this harvest is from residents outside the Kenai Peninsula area."

¹⁰⁷ Rutz, David, ADF&G, 21

¹⁰⁸ *Ibid.*, 26; Fair, Lowell, and Hasbrouck, James, ADF&G, memorandum to Hilsinger, John, and Swanton, Charles, ADF&G, *Upper Cook Inlet Stocks of Concern Recommendation*, September 25, 2007, 3

¹⁰⁹ The run size equals the total harvest/catch + escapement (e.g.: the total number fish that returned to that year). According to 2008 ADF&G age composition model estimates, 8.4% of the total 2.9 million annual UCI sockeye commercial harvest is Susitna sockeyes. That means roughly 243,600 Susitna Salmon are harvested annually by UCI commercial fishermen – thus equivalent to 58% of the total average run of approximately 417,559 Susitna sockeyes (run estimate = commercial harvest estimate of 243,600 + 173,959 average escapement/spawners during the years 2003-2007). Source: Fair, follow-up on Yentna, 4-5. Very recent data supplied to the Task Force by ADF&G, however, lists the average Susitna sockeye commercial harvest much lower at 129,202 fish per year, which would equal roughly 4.4% of the total UCI sockeye harvest. Based on that figure, 42% of the total annual Susitna sockeye run is harvested by commercial fishermen. ADF&G provided no documentation regarding what the new, lower harvest rate

The restrictions placed on Mat-Su Valley sport and personal use sockeye salmon fisheries effectively closed those fisheries and denied valley residents any chance to “use” the sockeye salmon resource closest to their homes, while commercial fishermen near Kenai continued to harvest over half of the entire northbound Susitna sockeye run despite growing conservation concerns.

It’s not clear to the Task Force why the burden of conservation of Northern District sockeye salmon seems to have disproportionately fallen on the “user” allocated the smallest portion of the harvest – the sport/personal use segment, which amounts to only 3% of the harvest. Such restrictions by the BOF and fishery managers appear to run counter to the Alaska’s Sustainable Salmon Fisheries Policy which makes it clear that as a general rule the “burden of conservation”, when necessary, shall be born by users of the resource proportionate to their respective use.¹¹⁰ With 97% of the Northern District sockeye harvest taken annually by commercial fishermen, it would seem that most – if not all – of the burden of conservation would fall on them.

was based on. See **Appendix, Spreadsheet #**. Detailed historical UCI sockeye commercial harvest and escapement records can also be found at <http://www.cf.adfg.state.ak.us/region2/finfish/salmon/uci/ucishist.php>.

¹¹⁰ 5 AAC 39.222(c)(4)(D)(SSFP): “an understanding of the proportion of mortality inflicted on each salmon stock by each user group, should be promoted, and the burden of conservation should be allocated across user groups in a manner consistent with applicable state and federal statutes, including AS 15.05.251(e) . . . ; [I]n the absence of a regulatory management plan that otherwise allocates or restricts harvests, and when it is necessary to restrict fisheries on salmon stocks where there are known conservation problems, the burden of conservation shall be shared among all fisheries in close proportion to each fisheries’ respective use.” See also 5 AAC 39.220(b) (Mixed Stock Salmon Management Policy): “[T]he burden of conservation shall be shared among all fisheries in close proportion to their respective harvest on the stock of concern.”

ADF&G has not provided an explanation except to say that by the time the Northern District run reaches the Susitna drainage 10-14 days after passing Kenai, it's too late to affect closures of commercial fisheries that may be intercepting the fish.¹¹¹ But even if one accepts that explanation, it's hard to understand how eliminating 3% of the harvest (by sport fishermen) is going to have any significant "conservation" effect on the stock. It seems incumbent upon ADF&G to develop a more proactive conservation approach consistent with the SSFP requirement that the burden of conservation be born proportionate to each user's share of the harvest.

UCI Sockeye Salmon Management Plans: "Primarily for Commercial Uses" to "Provide Commercial Fisherman with an Economic Yield"

There's no doubt that Upper Cook Inlet salmon allocation decisions are shaped in large part by current management plans that dictate that the most abundant Upper Cook Inlet salmon species be managed primarily for the 'economic benefit of commercial fishermen.' With the exception of early run Russian River sockeyes, current management plans require that ADF&G manage the UCI sockeye runs primarily for the benefit of commercial fisheries.¹¹² In essence, the species that constitutes over 83% of the total Cook Inlet salmon run, and most of the economic harvest value, is managed

¹¹¹ Fair, Lowell, and Hasbrouck, James, ADF&G, *Upper Cook Inlet Stocks of Concern Recommendation*, September 25, 2007, 3

¹¹² 5 AAC 21.358(a): "The department (ADF&G) shall manage the chum, pink, and sockeye stocks primarily for commercial uses to provide commercial fisherman (sic) with an economic yield from the harvest of these salmon resources based on abundance." See also, Hilsinger, John, Dir. Div. of Commercial Fisheries, ADF&G, PowerPoint presentation, *Legislative Task Force Overview of Upper Cook Inlet Salmon Management & Management Plans*, 15-16, 20; "Sockeye, chum, and pink salmon stocks, which move through UCI (mid-July to Aug), will be managed primarily for commercial uses."

'primarily for the economic benefit of commercial fishermen,' who represent less than 1% of all users of the UCI salmon resource.¹¹³

That fact alone raises serious doubt about the current management of Cook Inlet salmon fisheries. It's difficult for the Task Force to understand the justification for management practices that consolidate almost total control of a resource, and confer almost total benefit of that resource, to such a small fraction of the population. Without more time for investigation and further information, the Task Force could not determine the justifications for such management practices and directives.

Assumably, the allocation of UCI sockeye salmon almost exclusively to "commercial fishermen" is based on the need to ensure the sustainability of UCI salmon runs by preventing maximum escapement levels from being exceeded. But that justification assumes that commercial fishermen are the only segment of potential users of the resource that can harvest sufficient quantities to maintain desired escapement levels. Given Southcentral Alaska's rapidly growing population, that assumption may no longer be valid. With 415,000 potential users of the resource currently living along the shores of Cook Inlet, and the population growing at a rate of 7-40% per year,¹¹⁴ it's likely that increased allocations to the sport and personal use segments of the fishery could help achieve, to some large degree, the same management goals with regard to maintaining maximum escapement levels. Daily sport bag limits could be increased and personal

¹¹³ Harvesting and processing sector combined = only 2.4% of all users of the UCI salmon resource.

¹¹⁴ US Census Bureau 2007 estimates; Anchorage: 7.5%; KPB: 6.9%; Mat-Su: 39.4%

use fisheries expanded to allow more Alaskans to utilize the resource as a means to put food on their tables.

Another factor that may be part of the BOF's justification for managing Cook Inlet's most valuable salmon stock almost exclusively for the benefit of commercial fishermen is the recognition that economic conditions are increasingly difficult for the Upper Cook Inlet commercial fishing industry. Serious overcapitalization in the fishery, globalization of the market and increased competition from farmed fish production, rising fuel prices, and credit tightening due to a worsening US economy have all impacted profitability and led a significant decrease in UCI commercial salmon fishing permit values.¹¹⁵ Major shifts in sockeye allocations therefore could undermine the continued viability of a large segment of the UCI commercial fishing industry.

But that fact alone is not justification for ignoring the Constitutional rights of the vast majority of the resource users – to have reasonable access to, and benefit from, the resource.

Also, the difficult current economic circumstances of the UCI commercial salmon industry does not mean that any shift in allocations would necessarily destabilize the industry. To the extent a major shift in allocations might, the risk could be offset by buying back some UCI commercial fishing permits to reduce competition in a fishery that

¹¹⁵ *KRSA Executive Summary*, ES 9: "Current values of commercial salmon permits in Cook Inlet are about one-tenth (10%) of the all-time high values in the late 1980's and early 1990's." For current Cook Inlet commercial drift and setnet harvest and permit values and values during 1998-2007, see Twomley, Bruce, *Report to the Cook Inlet Salmon Task Force on the Buy-Back Program under the Alaska Limited Entry Act*, October 7, 2008, Attachments A-B

is overcapitalized¹¹⁶ – and thereby increase profitability and permit values for those remaining. As will be discussed later in this report, the option to buy-back UCI commercial fishing permits under the Alaska Limited Entry Act¹¹⁷ is arguably a viable legal option available for legislative consideration.

But current Upper Cook Inlet sockeye management plans, might not survive a legal challenge. Management plans that by design, or in practice, allocate 82% of a resource's yield to just 2.4% of all resource users appear in conflict with both the Alaska Constitution (Art. VIII) and AS 16.05.251(e).

In addition, the Task Force heard testimony that Cook Inlet management practices designed specifically to benefit commercial salmon fisheries have an adverse impact on sport and recreational users of the resource. As The Kenai River Sport Fishing Association has pointed out:

“The success of recreational fisheries relies not only on receiving an appropriate share of the salmon harvest but also on receiving those fish in a way that is meaningful to recreational users. Recreational fisheries management is based on providing anglers predictable opportunities to harvest a meaningful number of fish incrementally over the entire course of the fishing season. Management practices that optimize commercial

¹¹⁶ In Cook Inlet 25 commercial salmon permits are fished for every 100,000 pounds of fish harvested, compared to 3 permits fished to harvest the same amount in other Alaskan salmon fisheries. Source: *KRSA Executive Summary*, ES 6, “Comparison of Upper Cook Inlet percentages of commercial salmon caught and permits fished statewide indicate that commercial salmon fishing effort is disproportionately concentrated in Upper Cook Inlet.”

¹¹⁷ AS 16.43.010-990

fisheries harvests in Upper Cook Inlet often negate management practices that sustain recreational fisheries.”¹¹⁸

The negative implications of such fishery management policies also impact the Kenai Peninsula Borough and Alaska’s tourism industry generally. If recreational access to the bulk of the Cook Inlet salmon resource is confined mostly to early and late species runs, local tourism, hospitality and other businesses are faced with several boom and bust cycles during the peak summer tourism season. In addition, the adverse impact on river habitat and local wildlife is significantly magnified by “combat fishing” stampedes caused by current management practices.

Upper Cook Inlet Salmon Allocations: Summary

On balance, application of the allocation factors listed in statute in AS 16.05.251 to current Cook Inlet salmon allocations suggest that the 82/18 split of the harvest in favor of commercial fishing is not only unfair, but may be unconstitutional. While each segment plays a valuable role in the region’s economy, the sport and personal use segments of the fishery generate an “economic impact” greater by a factor of at least 6-1 – and a total “economic contribution” to the region and Alaska many times that.¹¹⁹

In addition, other factors indicate the current disproportionate allocations are not just. The growing number of potential Alaskan users of the resource; their dependence on it to obtain fish for personal and family consumption; the lack of reasonable alternatives; and

¹¹⁸ *KRSA Executive Summary*, ES 11

¹¹⁹ This important aspect of UCI salmon allocations is discussed in the next section of the report

the critical importance of Inlet Cook Inlet salmon fisheries for recreational opportunities for residents and non-residents all weigh heavily in favor of greater allocations to sport/personal uses. Any reasonable application of the allocation policy criteria articulated in AS 16.05.251(e) suggests that sport and personal use fisheries should be assigned a much higher allocation priority than they currently receive in the Upper Cook Inlet salmon fisheries.

Ironically, the current lopsided allocations with most of the resource reserved for only a fraction of the population appear to create the same disproportionately concentrated and unfair consumption of a state fishery resource that the Constitution was specifically designed to prevent.

At the same time, it must be recognized that major allocation shifts may not be advisable. To some extent achieving "maximum benefit" requires maximum utilization of the resource yield and it's doubtful that increases to the sport/personal use segment could achieve the kind of harvest levels currently attained by commercial fishing. To the extent the UCI salmon yield was not fully harvested, there would be lost "economic benefit" to Alaska. There would also be potential damage to the resource ecosystem from overescapement – if that management theory is scientifically valid.

It's also very likely that some combination of UCI sport and commercial fishing generates a greater overall economic benefit for Alaska than either could generate alone. The mere fact that the number of nonresident sportfishing tourists has increased

dramatically in the past 15 years – despite the disparity in current allocations – demonstrates that the allure of salmon fishing in Alaska is drawing hundreds of millions of new dollars into the state each year and would continue to do so even under current allocations. In other words, there's no guarantee that putting more fish in the rivers would translate into more tourists and additional new money coming to Alaska to offset the loss of UCI commercial fishing revenues and taxes. At least not in the near term. It's reasonable that over time that might be the case as word spread about increased sportfishing opportunities and successes in Alaska – but it would presumably take several years for any “additional” new economic impact from nonresident spending to materialize.

On the other hand, the negative economic impact of a reallocation would be felt immediately by the commercial fishing sector. The Task Force had no opportunity to review economic data (if any exists) that assesses the likely negative impact potential allocation shifts might have on the UCI salmon fishing industry – particularly UCI salmon permit holders. Prudence demands that such analysis precede any major re-allocations.

The analysis should include identification of all factors that have contributed to the recent steep decline of the UCI commercial salmon fishing industry, including the impact any past salmon reallocations may have had. If prior reallocations have affected the industry's profitability in a significant way, the cause and effect relationship needs to be analyzed. But the analysis should also identify the degree to which other key factors are

affecting the UCI commercial salmon fishery. Because clearly the UCI commercial salmon fishing industry is struggling despite the fact that it is awarded the bulk of the harvest. Thus, allocations can't be a major cause of the industry's current problems. Future allocations may be less determinative to the industry's continued viability, therefore, than other factors outside of state control. Factors that are impacting the commercial industry's viability now will continue to do so until steps are taken to address them.¹²⁰ The size of future allocations thus might have less economic effect than other variables like overcapitalization of the fishery and increasing international competition from farmed fish. Those issues could be addressed as part of a reallocation decision if accurate, comprehensive data on the commercial fishery was available.

It's possible the BOF has already undertaken such an analysis. If not, an economic study should be commissioned and completed prior to the next BOF UCI meeting in 2011. Alaska policy makers and UCI commercial fishing families deserve that information. The data might illuminate ways to help the struggling industry generally,¹²¹ and allow policy makers to anticipate and mitigate any adverse impacts future reallocations may have.

Another important consideration in Upper Cook Inlet salmon allocations is the extent to which aggressive prosecution of the UCI commercial sockeye salmon fishery may be

¹²⁰ In 2007, only 900 commercial permits were fished out of 1309 issued for Upper Cook Inlet. In 2006, only 878 were fished. Source: ADF&G Commercial Fishing Limited Entry Commission

¹²¹ For example, determine the extent of overcapitalization and ways to alleviate it; identify precisely factors that are impacting profitability and permit values; explore ways to improve marketing, industry efficiency and global competitiveness, etc.

contributing to the sharp declines in Northern District Susitna sockeye salmon stocks – and thereby threatening the continued sustainability of those fisheries. That issue needs more investigation. The Task Force could not make any determination on that issue based on the limited time and ADF&G data available. ADF&G estimates that Susitna sockeyes make up 8.4% of the Upper Cook Inlet commercial catch. But they admit the reliability of the data is suspect.¹²²

Nonetheless, the Susitna fisheries lie at the heart of one of Alaska's fastest growing regions – where population growth is currently projected at four times the state average.¹²³ The Susitna salmon fisheries are without question a critical resource to more than 83,000 Alaskans who currently live in the Mat-Su valley.

To the extent current UCI salmon management practices that favor commercial fisheries threaten the sustainability of Northern District salmon stocks – the practices must change. If unintended interception or over-exploitation of Susitna sockeye stocks by commercial fishermen is contributing to the stock's decline, then steps for mitigating the interception are not just needed – but Constitutionally mandated.

¹²² ADF&G, Susitna Plan, 2008, 2, "Since the total Upper Cook Inlet (UCI) commercial harvest averages 2.9 million sockeye salmon and the age composition allocation model estimate of the Susitna sockeye salmon harvest is only 8.4% of the total, the department has low confidence in the accuracy of our estimate of the Susitna sockeye salmon harvest."; Fair, Lowell and Hasbrouck, James, ADF&G, *Upper Cook Inlet stocks of concern follow-up on Yentna River sockeye salmon*, 3, "Unfortunately, the allocation methodology used to apportion sockeye salmon catches to component stocks in UCI represents a coarse approximation of the actual catch by stock."

¹²³ The US Census Bureau estimates 2007 state population growth at 9%, but the Mat-Su Borough at nearly 40% (39.4%)

In short, while the Upper Cook Inlet salmon allocation issue is complex, many facts tend to speak for themselves. The framers of Alaska's Constitution made resource sustainability the highest priority. Second they mandated that resources be held for the common good, and utilized in a manner that maximizes benefit to Alaskans. Yet in Upper Cook Inlet, current salmon allocations award 82% of the harvest to less than 3% of all users – and most of the entire harvest value, to less than 1% of the region's population.

Undeniably, Alaska's commercial fishermen are valued members of our communities. They are an important part of Alaska's heritage and one of the "beneficial user" groups the framers of the Constitution were trying to protect. Yet ironically, it appears that with regard to Upper Cook Inlet salmon allocations, the wagon seems to have come full circle. A vital Alaskan salmon resource is once again controlled by relatively few, to the exclusion of many. And based on the limited Task Force review, it's hard to find reasonable justifications for the current disproportionate allocations.

Without further examination, it's not possible for the Task Force to determine whether or not current BOF policies for Upper Cook Inlet salmon allocations comply with the statutory guidelines of 16.05.251(d)-(e). That determination will have to be reserved for a future examination, as the Task Force simply had insufficient time to fully explore the

issue and draw firm conclusions regarding the fairness of the current Upper Cook Inlet salmon allocations.¹²⁴

But current BOF management plans and practices that dictate management of the largest segment of the Cook Inlet fishery 'for the economic benefit of commercial fishermen' raise doubt that the current allocations reflect a totally unbiased weighting of the factors listed in 16.05.251(e). Moreover, compelling data presented to the Task Force regarding the significant economic and non-economic benefit to Alaskans from Upper Cook Inlet sport and personal use salmon fisheries creates additional doubt regarding whether many of the factors specified in 16.05.251(e) were given due consideration by the BOF.¹²⁵

It may be that much of that information was not available to the Board of Fisheries when the Upper Cook Inlet salmon allocation issue was last addressed. Nevertheless, increasing concerns over sustainability of Northern District sockeye stocks, and any reasonable application of the factors listed in AS 16.05.251(e), suggest that current Upper Cook Inlet salmon management practices and allocations may not be in compliance with the Constitution, state statutes, or Alaska's Sustainable Salmon Fisheries Policy – and

¹²⁴ As testimony to the Task Force pointed out, "The Board of Fisheries (BOF) appropriately considered thousands of pages of written materials and public testimony before rendering its (UCI salmon allocation) regulatory decisions." See (UCIDA), *Proposed Findings for the Upper Cook Inlet Joint Legislative Task Force*, 2, Prop. Finding 14

¹²⁵ An excellent recommendation was made to the Task Force that the BOF be provided with staff economists to help with analysis of the complicated socio-economic considerations listed in AS 16.05.251. It was pointed out that the equivalent federal regulatory body, the North Pacific Fishery Management Council, has several economists and researchers on staff to help identify the socio-economic impacts of potential allocation decisions. See Kluberton, Tom, Chair Matanuska-Susitna Mayor's Blue Ribbon Sportsmen's Committee, *Letter to The Joint Legislative Cook Inlet Salmon Task Force*, 2

therefore should be the focus of further investigation and legislative review prior to the next Board of Fisheries Upper Cook Inlet review in 2011.

V. The Economic Impact of Upper Cook Inlet Salmon Fisheries

The most recent data on the economic impact of Upper Cook Inlet salmon fisheries was published in late 2008 and early 2009, and only made available to the Task Force at its final meeting in January.¹²⁶ As a result, there was no opportunity for in-depth consideration of the data by Task Force members.¹²⁷ Nevertheless, with some assistance from University of Alaska economist Gunnar Knapp, the Task Force was able to review briefly the economic contributions and impacts of Upper Cook Inlet salmon fisheries. In addition, during preparation of this report, significant additional time was available for analysis of the economic studies and compilation of data from ADF&G.

What is immediately clear is that both the Upper Cook Inlet sport and commercial salmon fisheries have a major economic impact on the region and Alaska. An overview of the economic "impacts" and "economic contributions"¹²⁸ of each type of fishing activity is

¹²⁶ Northern Economics, Inc., *The Seafood Industry in Alaska's Economy*, January 2009; Southwick Assoc., Inc. et al., *Economic Impacts and Contributions of Sportfishing in Alaska, 2007*, ADF&G Prof. Pub. No. 08-01, December 2008

¹²⁷ The major recent study on the economic impact of sport fishing in Alaska was published by ADF&G in December 2008 and is 289 pages long. The most recent major study of the economic impact of commercial fishing in Alaska was published in January 2009 and is 79 pages long.

¹²⁸ Economists consider new money brought into a state or region as direct "economic impact," whereas the benefits of that money circulating within the state or region (creating additional income and jobs) are considered "economic contributions." See Knapp, Gunnar, *Comparison of Recent Sport and Commercial Fisheries Economic Studies*, 2009, 9, "Sales of an industry to non-residents bring new money into the economy and increase the size of the economy. Sales of an industry to residents don't necessarily bring new money into the economy and don't necessarily increase the size of the economy."

presented below, while the full executive summaries of each economic study can be found in the Appendix to the Task Force report.¹²⁹

Sport Fishing Economic Contributions and Impacts (2007)

According to a major new economic study conducted for ADF&G, in 2007 statewide spending on sportfishing totaled \$1.4 billion.¹³⁰ That figure includes spending by 475,534 resident and nonresident anglers¹³¹ on licenses, taxes, trips and packages, fishing and fishing related equipment, and real estate construction and maintenance used primarily for sportfishing.¹³² Spending by nonresident sportfish anglers in 2007 created a direct economic impact¹³³ of \$653 million for Alaska, which supported 9,437 jobs and generated \$67 million in state and local tax revenues.¹³⁴

ADF&G's Sportfish Division website notes the study found:

"The regional distribution of spending by anglers generally follows the distribution of total days fished in Alaska, with most angler spending occurring in the Southcentral region (72%), followed by the Southeast and the Interior regions with 20% and 7% of total angler spending respectively. Total expenditures on guided sportfishing activities in 2007 totaled \$416 million, which resulted in \$641 million in total economic

¹²⁹ The Appendix to the Task Force report also contains the full executive summary of the Kenai River Sport Fishing Association economic report

¹³⁰ Southwick Assoc., Inc., et al., xvi

¹³¹ *Ibid.*, xiii, Table E3. The study found that 60% of licensed anglers were nonresidents, while 40% were Alaskans

¹³² *Ibid.*

¹³³ Spending by nonresident sportfish anglers – or "new money" brought into Alaska's economy

¹³⁴ Southwick Assoc., Inc., et al., xvi-xvii

activity and supported 7,183 jobs. Resident anglers spent an average of \$150 per day of sportfishing activity on trip-related expenses in 2007, while nonresident anglers spent an average of \$448.¹³⁵

Statewide sportfishing spending by resident and nonresidents combined generated \$354 million in direct income (wages/etc.) to 11,080 full and part time employees and proprietors who worked in Alaska businesses whose products were purchased by anglers.¹³⁶ By applying multipliers, the study determined that the economic activity of that spending as it circulated through the economy produced a total of \$545 million in wages, which supported 15,879 full and part time jobs statewide, and provided \$123 million in tax revenues for local and state governments.¹³⁷

Significantly, the ADF&G study found that approximately three-fourths of all sportfishing and sportfish spending took place in Southcentral Alaska.¹³⁸ Resident and nonresident sportfish anglers spent a total of \$989 million in Southcentral Alaska in 2007 – with \$733 million of that spent in the Cook Inlet region.¹³⁹

In Southcentral, sportfish spending generated \$240 million in direct income to 7,897 full and part time employees and proprietors of businesses whose products were purchased by

¹³⁵ <http://www.sf.adfg.state.ak.us/statewide/economics/>

¹³⁶ Southwick Assoc., Inc., et al., xvi-xvii

¹³⁷ *Ibid.*

¹³⁸ *Ibid.*, 109, “Approximately three-quarters of all fishing (69%) and spending (72%) in Alaska took place in the Southcentral region.”

¹³⁹ *Ibid.*, xix-xxi, 109. The amount does not include license and stamp fees paid to the state. Of the \$989 million spent on sportfishing in Southcentral, residents accounted for \$561 million and nonresidents \$428 million (xx, Table E10)

anglers.¹⁴⁰ \$428 million in spending by nonresidents supported 4,329 of those jobs and generated \$131 million of the direct wage/income.¹⁴¹

Applying economic multipliers, the study estimated that sportfish spending in Southcentral Alaska generated economic activity that provided a total of \$386.5 million in income and \$91 million in taxes for local and state governments, while supporting 11,535 jobs.¹⁴²

Cook Inlet Sportfish Economic Impact and Contributions:

The ADF&G study also broke out Cook Inlet as a subregion of Southcentral. It found that \$733 million in spending there provided \$172 million in direct income to 5,282 full and part employees and proprietors of businesses whose products were purchased by anglers.¹⁴³ Cook Inlet sportfish spending also generated \$55 million in taxes for state and local governments.¹⁴⁴

Residents accounted for the largest share of sportfish spending in Cook Inlet, accounting for \$458 million of the \$733 million total, while nonresidents spent \$275 million.¹⁴⁵

¹⁴⁰ *Ibid.*, xx

¹⁴¹ *Ibid.*, Table E10

¹⁴² *Ibid.*, xix-xxi, 68-78, 109

¹⁴³ *Ibid.*, 96

¹⁴⁴ *Ibid.*, 100, Table 68

¹⁴⁵ *Ibid.*, 91, Table 60. Statewide, residents accounted for \$733 million of the \$1.4 billion sportfishing spending, with nonresidents spending \$653 million, *Ibid.*, xvi

Applying economic multipliers, the study found that sportfishing spending in Cook Inlet generated a total of \$279 million in wages that supported 8,056 full and part time jobs.¹⁴⁶

On average, sportfish anglers spent \$245 per day of fishing for all fishing trip or package related purchases (fuel, groceries, fishing gear, lodging, restaurants, etc.) in Cook Inlet.¹⁴⁷ Nonresident spending on such items was significantly higher at an average of \$376 per day, while Alaska residents spent an average of \$162 per day of fishing.¹⁴⁸ But Alaskans spent significantly more on an annual basis for sportfishing equipment than did nonresidents (\$1,745 compared to \$329).¹⁴⁹

While the ADF&G study did not differentiate economic contributions and impacts from various types of sportfishing (e.g.: salmon, trout, halibut) it did break out percentages for fresh water and salt water sport fishing; and the percentage of guided and unguided angler days. That data facilitates reasonable conclusions regarding to the economic impacts and contributions from sport fishing in the Cook Inlet salmon fisheries.

For example, the study found that in Cook Inlet 80% of the angler days were spent fishing in fresh water – and only 20% in saltwater.¹⁵⁰ Moreover, 81% of all Cook Inlet sportfish angler days were spent “unguided.”¹⁵¹ Combined, that data indicates that only a small percentage of Cook Inlet sportfish spending involved anglers fishing for species

¹⁴⁶ *Ibid.*, xx, 90-100, 109

¹⁴⁷ *Ibid.*, 92, Table 61, “Trip-related expenses refer to spending for temporary or consumable goods and services that anglers make while on a particular fishing trip.”

¹⁴⁸ *Ibid.*

¹⁴⁹ *Ibid.*

¹⁵⁰ *Ibid.*, 41, Table 13

¹⁵¹ *Ibid.*, Table 14

other than salmon (like halibut or rock fish). With fully 80% of all angler days in Cook Inlet spent fishing in “freshwater” – and without guides – it’s reasonable to assume that at least 3/4 of all sportfishing activity and spending in Cook Inlet involved the Upper Cook Inlet salmon fisheries.¹⁵²

Sportfishing Summary: In 2007 sportfish angler spending in the Upper Cook Inlet salmon fisheries generated a direct “economic impact” of more than \$209 million for the region and Alaska.¹⁵³ When combined with resident spending in the fisheries, the total “economic contribution” of the Upper Cook Inlet sport fisheries was approximately \$630 million.¹⁵⁴

Commercial Fishing Economic Impacts (2006-2007)¹⁵⁵

Undeniably, the seafood industry today plays a major role in Alaska’s economy – as it historically has. A major new economic study by Northern Economics published in January 2009 found that the seafood industry ranks 3rd in importance behind only oil and gas and the federal government in terms of generating basic economic activity in Alaska.¹⁵⁶ It also found that the ex-vessel value of Alaska’s overall commercial seafood harvest was \$1.55 billion, with value-added processing activity bringing the total

¹⁵² While trout and grayling fishing no doubt constituted a percentage of “freshwater” angler days, it’s probable that the percentage for those species is exceeded by the percentage of salmon fishing days included in the 20% guided and unguided “saltwater” days (e.g.: Deep Creek, Kasilof)

¹⁵³ Figure = 75% of \$279 million in nonresident spending in Cook Inlet (or \$209.25 million).

¹⁵⁴ Figure = 75% of \$561 million resident sportfish spending in Cook Inlet (or \$420.75 million) plus \$209 million in nonresident spending (or \$630.25 million)

¹⁵⁵ The Northern Economics study used data from either 2006 or 2007 depending on whichever was the most recent data available; Northern Economics, Inc., 1

¹⁵⁶ Northern Economics, Inc., ES 2

wholesale value – or “economic impact” – of Alaska’s commercial seafood industry to \$3.6 billion.¹⁵⁷ The study noted that seafood is Alaska’s top international export and amounts to roughly half of Alaska’s total export value.¹⁵⁸

But the data presented in the Northern Economics study represented the value of all commercial seafood species harvested statewide, not just salmon – and include harvesting and processing activity in both state and federal jurisdictions. In both the harvesting and processing sectors, a majority of the economic activity took place in waters under federal jurisdiction.¹⁵⁹

Also, while the Northern Economics study did contain data on the percentage of statewide economic impact for each seafood species (e.g.: salmon,¹⁶⁰ halibut, crab, etc.), the study did not break out economic impacts for each species – by region. The study also cautioned that species-specific wholesale values (e.g.: economic impact of salmon) should not be correlated directly to ex-vessel values because of data inconsistencies and the nature of wholesale transactions where sales may occur in different years from harvests.¹⁶¹ Thus, it’s not possible to determine from the Northern Economics study what

¹⁵⁷ *Ibid.* Thus the average increase among all species of seafood value from ex-vessel to first wholesale is thus 132% (\$1.55 billion to \$3.6 billion)

¹⁵⁸ *Ibid.*

¹⁵⁹ *Ibid.*, 28-29. The study found that 32% of the \$1.55 billion harvest ex-vessel value was in Alaska jurisdiction (or \$496 million), while 58% of the value was harvested in waters under federal jurisdiction and 10% in jointly controlled waters. For processing the figures were 63% federal jurisdiction, 32% state and 5% joint

¹⁶⁰ *Ibid.*, 25. The Northern Economics study found that statewide, salmon represented 29% of the total \$3.63 billion Alaska seafood first wholesale value (“economic impact”) – or just over \$1 billion

¹⁶¹ *Ibid.*, 25, 4.2.2. For example, in UCI salmon harvests in 2005-2006 were about double the recent five year average, and its likely that surplus product was carried over and sold in the following year

economic impact is attributable to just the Upper Cook Inlet commercial salmon fishing industry.

But it is possible another way. The annual and average economic impact of the Upper Cook Inlet commercial salmon fishing industry can be determined by using a combination of ADF&G harvest data and wholesale sales data submitted to the state by seafood processors.¹⁶²

In his presentation to the Task Force Prof. Knapp estimated the total economic contribution and impact of the UCI 2007 commercial salmon harvest to be approximately \$77 million.¹⁶³ Unfortunately, his assessment relied on data that was inapplicable. The ADF&G data supplied to Prof. Knapp included the wholesale value of salmon processed in both Upper and Lower Cook Inlet – and salmon that had been harvested in other fisheries/regions (i.e.: Bristol Bay). In fact, the 43.5 million pounds of “processed” salmon that constituted the \$77 million dollar wholesale value he relied on was more than double the total salmon poundage harvested in all of Cook Inlet that year (26.1 million).¹⁶⁴

The discrepancy resulted mainly from the fact that the processor “Commercial Operator Annual Report” (COAR) Prof. Knapp relied on for his analysis did not separate Upper

¹⁶² Processors submit “Commercial Operator Annual Reports” (COAR) reports to ADF&G which details product net weight and wholesale value/price per pound. The information is available by request in aggregate form for each region (production/price of specific, individual processors is not released to the public for confidentiality reasons)

¹⁶³ Knapp, *Comparison*, 24, note **

¹⁶⁴ <http://www.cf.adfg.state.ak.us/geninfo/finfish/salmon/catchval/blusheet/07exvesl.php>; Upper and Lower Cook Inlet combined harvest was 26.1 million pounds of fish in 2007.

Cook Inlet processors from lower Cook Inlet processors. A sort of the same data, but separating out Upper from Lower Cook Inlet processors reveals that product volumes processed by Upper Cook Inlet processors tend to track very closely with UCI harvest levels, while product volumes produced at Lower Cook Inlet processors shows no correlation to either Upper or Lower Cook Inlet harvest levels and likely represent salmon harvested in other regions (i.e. Kodiak, Bristol Bay, etc.) and shipped to LCI for processing.¹⁶⁵

In contrast in 2007 Upper Cook Inlet processors produced 14.6 million pounds of product valued at \$31.3 million wholesale.¹⁶⁶ That processed poundage correlates very closely with Upper Cook Inlet commercial salmon harvests that year. The 2007 UCI harvest of 19.5 million pounds of salmon would translate into roughly 14-15 million pounds of processed product.¹⁶⁷ Thus, based on the wholesale price data of the UCI processors in

¹⁶⁵ For example, the annual harvest of Lower Cook Inlet is only a few million salmon each year. But the 2007 "combined" COAR data provided to Professor Knapp included 28.9 million pounds of finished "product" produced at Lower Cook Inlet processors. That amount of "product" exceeds both the total 2007 UCI total salmon harvest weight of 26 million pounds – and was more than double the final processed weight of all 2.9 million UCI salmon harvested that year (approx. 14.3 million pounds based on 73.5% round fish to finished product). Thus, the COAR data for LCI processors that year likely included more than 5-6 million salmon harvested outside of Cook Inlet. For years 1998-2007 processing activity at Lower Cook Inlet plants indicates a similar pattern with many more fish processed than harvested in the region.

¹⁶⁶ ADF&G, COAR 4/1/09, *Wholesale Value of Salmon for Upper and Lower Cook Inlet for the Years 1998-2007*, supplied at Chairman Johnson's request.

¹⁶⁷ Processed weight for sockeyes is approximately 70-76% of total fish weight depending on how the fish is processed. If the fish is headed and gutted/frozen, it produces a finished product of about a 76% of the "round," ex-vessel fish weight. If canned, the product yield is closer to 70-71% of the round poundage. See for example, Nelson, Stuart, *Fraser River (BC, Canada) Sockeye Salmon Benchmark Study*, March 2006, 29. While much of Alaska sockeye is canned, specific percentages are confidential and both product types are produced. Without more precise information on UCI processor products, a 73.5% finished product yield average was used (e.g.: average of canning vs. head/gutted yields). Thus, the 2007 UCI commercial salmon harvest of 19.5 million pounds would yield approx 14.3 million pounds of processed product (73.5%). UCI processor reported 14.6 million pounds for that year. **Note:** The estimate for round fish weight to finished product weight for all species of US salmon is only 55%. See Knapp, Gunnar,

2007, the “economic impact” of the Upper Cook Inlet commercial salmon fishery was approximately \$30.7 million.

So while ADF&G COAR data can be misleading because processors process fish from different fisheries at the same plant, a careful review of production volumes at only “Upper Cook Inlet” processors indicates a very close relationship to UCI harvests in recent years. For example, the 2006 UCI commercial harvest of 15.4 million pounds of salmon should have produced roughly 11-12 million pounds of product depending on the product line. The COAR data shows 12.4 million produced by UCI processors that year, for a value of \$30.3 million – thus another close match of UCI harvest levels to UCI processor output.¹⁶⁸

Projections of Future Bristol Bay Salmon Prices, UAA ISER study prepared for the Alaska Commercial Fisheries Entry Commission (CFEC), October 2004, II 6, Table II-2. Without specific data on US “sockeye” production ratios, the higher yield estimates from Fraser River study has been used for the purposes of this report. But a yield ratio of only 55% would result in an approximately 25% reduction in the economic impact of the UCI fishery, or roughly an average wholesale value of approximately \$27.5 million for the period 2002-2007; and \$21.1 million for the most recent 10 year period (1998-2007). As most of the UCI yield is sockeye salmon (93%), the Fraser River data which was also “sockeye” should be more comparable.

¹⁶⁸ ADF&G, COAR 4/1/09, *Wholesale Value of Salmon for Upper and Lower Cook Inlet for the Years 1998-2007*. The 2002-2007 UCI processor finished product data correlates very closely with UCI harvests, usually within 10% of projected weight. Further only in two of those years, where there were banner UCI harvests (2004, 2005) did the processor output/capacity not meet harvest round to finished product ratios – meaning some UCI fish were likely shipped out to other regions. But in most years, the processing output was a near match or slightly higher, so it’s reasonable to assume that UCI salmon are normally processed near where they are harvested in UCI at the wholesale prices listed by UCI processors for each year. Even if that were not the case, UCI processor wholesale prices for the period 2002-2007 averaged \$1.89 lb. while the statewide average sockeye wholesale price for the period was \$2.21 (14.5% higher). Even using the higher statewide sockeye wholesale average for the entire UCI harvests for the period 2002-2007, you get an average first wholesale value or “economic impact” for the fishery that is only \$4.6 million dollars higher, or \$41 million, as compared to the more likely \$36.6 economic impact average derived by using UCI processor prices. Source: *Ibid.*; ADF&G, COAR 4/1/09, *Yearly Price Per Pound for Sockeye Salmon Statewide for the years 1998-2007*, supplied at Chairman Johnson’s request.

In general, by crossing the ADF&G harvest weight volumes for Upper Cook Inlet with processor COAR wholesale price data it's possible to determine with reasonable accuracy the approximate annual "economic impact" of the Upper Cook Inlet commercial salmon fishing industry.¹⁶⁹

Commercial Fishing Summary: For the period 2002-2007, the Upper Cook Inlet commercial salmon industry produced an average "economic impact" of about \$36.6 million for the region and Alaska.¹⁷⁰ For the most recent ten year period (1998-2007), the industry's average economic impact was about 20 percent less, or \$28.1 million.¹⁷¹ Ex-vessel prices during the same ten year period produced a total annual economic benefit of roughly \$16.3 million to Upper Cook Inlet commercial fishermen

¹⁶⁹ By calculating harvest weight to processed weight, you can determine approximately how much UCI processed salmon product there should have been each year. Adjustments can then be made where necessary to ADF&G UCI processor COAR values by multiplying the average price per pound for that year against the pounds of overage or underage of processed product.

¹⁷⁰ Based on UCI harvest and UCI processor wholesale price per lb data. Sources: ADF&G annual UCI harvest data; ADF&G, COAR 4/1/09, *Wholesale Value of Salmon for Upper and Lower Cook Inlet for the Years 1998-2007*

¹⁷¹ That's because the average UCI harvest in the previous five year period between 1998-2001 was only 15 million pounds of salmon compared to an average of 34.4 million pounds a for the years 2002-2007.

(harvesters/crew)¹⁷². In addition, the Southcentral seafood processing industry generates about \$14 million in wages annually.¹⁷³

Why the Numbers Matter: The Policy Implications of UCI Fisheries Economic Data

The framers of Alaska's constitution made it clear that "economic benefit" was not the sole consideration in making resource allocations. A number of other important socio-economic factors were also to be considered in allocating resource use to produce the "maximum benefit" for Alaskans. But the "economic impact" or "economic benefit" of potential uses of a resource logically factors large in any "maximum benefit" equation.

Moreover, in expressing the policy intent to develop Alaska's resources fully by "making them available for maximum use consistent with the public interest"¹⁷⁴ the framers implicitly recognized that "utilization" of state resources would likely change over time as the population grew and demographics changed. That's particularly true with regard

¹⁷² ADF&G: <http://www.cf.adfg.state.ak.us/geninfo/finfish/salmon/catchval/blusheet/08exvesl.php>. That figure represents a steep decline in harvest values equaling only 15% of the highest historic annual values for UCI salmon harvests, which averaged \$108 in value per year during 1986-1992. Note: The figures listed on the ADF&G website cited in this footnote also include Lower Cook Inlet harvests, with an average annual value of approximately \$1.8 million during the most recent 10 year period. The figure of \$16.3 million annual average for the same period is derived by subtracting the LCI ex-vessel values from the figures listed on the ADF&G website which includes both UCI & LCI ex-vessel values. For the most recent 10 year average, LCI salmon fisheries have harvested approximately 1.6 million fish – or about 660,000 pounds of the UCI annual harvest (LCI: sockeyes 17%/ave 6.12lbs ea; Pinks 28%/ave 3.35 lbs ea).

¹⁷³ Northern Economics, Inc., 52, Figure 47. Data represents 2007 processing sector wages. No 10 year figures were available, but the approximately \$14 million wage amount likely represents close to an average for the industry. That figure is confirmed by Alaska Dept. of Labor and Workforce Development (ADLWD) data for the Kenai Peninsula Borough (KPB) which shows \$13.1 million in wages paid to processing workers in 2008, Note: the Northern Economics \$14 million figure represents wages paid in the processing sector in all plants in Southcentral, not just UCI (e.g.: includes Valdez, Cordova, Whittier, Seward & Homer). It also includes processing wages paid for processing all seafood species (i.e.: halibut, crab, herring, rockfish, salmon, etc.), which would be the case for the KPB ADLWD data as well.

¹⁷⁴ *Constitution*, Art. VIII, Sec. 1, "Statement of Policy"

to “renewable” resources that produce economic yields for the state year after year. Managing such yields to “maximize” the economic benefit to Alaska is an ongoing process. And much like other state revenues, the allocation of “economic benefits” from a renewable resource must be assessed frequently as a matter of policy.

As ADF&G pointed out in explaining the need for the new economic study of sportfishing spending impact:

“As part of its mission and strategic plan, (ADF&G) must manage sport fisheries according to the sustained yield principle and in ways that attempt to optimize social and economic benefits to Alaskans. (ADF&G) is also required to provide the legislature with periodic updates on a number of key performance measures related to its management of fish and wildlife resources in Alaska. These measures include estimates of the economic contribution of sportfishing to the state of Alaska for key regions and by residency.

....

One of the key objectives of the project (was) to establish a consistent and repeatable methodology for . . . comparing such estimates over time, as well as making reasonably current estimates available to planning and regulatory decision-makers.”¹⁷⁵

¹⁷⁵ <http://www.sf.adfg.state.ak.us/statewide/economics/2007Study.cfm> The most recent economic impact assessment conducted by the Division (prior to Southwick, Inc., et al, 2007) was completed in 1989 with estimates for 1993 fishing activity, meaning that prior detailed economic impact estimates were 14 years old.

That's precisely the kind of resource "use" analysis the framers intended. Because with regard to salmon resources specifically, after the near collapse of the resource in the 1950s caused essentially by monopolistic control by a few outside processors, the Constitution made it clear that after statehood fishery resources would be managed for the "common use" of all state residents, and that benefits should accrue generally to Alaskans to the greatest extent possible.

In the decades immediately following statehood, the reallocation of "economic benefit" from state salmon resources away from just a few outside processors with fish wheels to Alaskan commercial fishermen provided both the fullest possible sustainable "utilization" of the valuable resource – and the greatest economic benefit to Alaska.

But recent economic data suggests that in Upper Cook Inlet salmon fisheries, the circumstances have dramatically changed. Population increases in the region now favor sportfishing "utilization" of that resource by a factor of over 40-1. Moreover, a comparison of the direct "economic impact" for Alaska from the two major segments of the fishery in 2007 reveals that sportfishing had an "economic impact" almost seven times greater than commercial fishing (\$209 million to \$31 million).¹⁷⁶ When resident sportfishing spending in Cook Inlet is added in, the "economic contribution" ratio was about 20-1.¹⁷⁷

¹⁷⁶ In 2007, \$209 million nonresident sportfish spending vs. \$31 million comfish first wholesale to nonresidents (6.7-1)

¹⁷⁷ \$630 million resident and nonresident Cook Inlet sportfish spending (all sales) compared to \$31 million commercial first wholesale value (all sales) (20.3-1)

The Bottom Line: What the New Upper Cook Inlet Numbers Tell Us

The new economic data on the Upper Cook Inlet salmon fishery demonstrates that the sportfishing economic production from the Upper Cook Inlet salmon fishery resource is significantly greater than that produced by commercial fishing.

In 2007, salmon sportfishing spending in Upper Cook Inlet produced approximately \$209 million in direct “economic impact” (sales to nonresidents/“new money”) for the region and Alaska. In the same year, Upper Cook Inlet commercial salmon fishing produced approximately \$30.7 million. In “total sales” (resident and nonresident), salmon sportfish spending in Upper Cook Inlet generated a total “economic contribution” of approximately \$630 million. That compares again to the total Upper Cook Inlet commercial salmon fishing industry sales of \$30.7 million (“first wholesale value”).¹⁷⁸ Sales from both sportfishing and commercial fishing would also create additional economic activity for the region and state as the money circulates creating additional income and jobs.¹⁷⁹

In short, the new economic data – much like the socio-economic data – indicates that Upper Cook Inlet salmon allocations may not be consistent with the Constitutional policy

¹⁷⁸ In economic terms, the processor “first wholesale value” equals “all sales” and therefore represents both the industry’s “economic impact” and “economic contribution.” In sportfish spending, the approximately \$209 million spent by nonresidents in 2007 on UCI salmon fishing would constitute the direct “economic impact,” while the total nonresident and resident spending combined of \$630 million would constitute “all sales” – or the “economic contribution.”

¹⁷⁹ Note: neither the sportfish nor commercial economic figures listed here (e.g.: \$209-\$31 million; \$630-\$31 million) take into account the standard effects of economic multipliers as the money circulates. The figures listed are both direct “sales” figures for the industries. As such, they are the most accurate direct comparisons of the “economic impact” and “economic contributions” of the industries.

of producing “maximum benefit” from the fishery. Sportfishing in Upper Cook Inlet produces roughly seven times (6.7-1) the “economic impact” and twenty times the “economic contribution” (20-1). Yet commercial fishing is allocated 82% of the harvest.

But economic contribution figures can’t identify optimum allocation policy. The framers never intended that they should – and it would be inaccurate to conclude that such data even could. Because as Professor Knapp pointed out in his presentation to the Task Force, simply “allocating more salmon to Cook Inlet sport fisheries will not result in proportionately higher economic contributions (because) it won’t give Alaskans more money to spend.”¹⁸⁰ He also noted that reallocations would not result in a “one-to-one tradeoff” between commercial and sport harvests.¹⁸¹

Moreover, Prof. Knapp warned Task Force members of inherent biases and a potential large margin of error in the sportfish study.¹⁸² Nevertheless, Prof. Knapp concluded that the sportfish study was “done carefully and attempted to minimize errors and bias . . . (and) followed standard procedures used by economists to collect data about and measure expenditures of anglers, tourists and other similar groups.”¹⁸³ Even so, he cautioned that

¹⁸⁰ Knapp, *Comparison*, 41

¹⁸¹ *Ibid.*

¹⁸² *Ibid.*, 27, Knapp stated that economic data for the commercial fishing industry by contrast was “not perfect . . . but reasonably reliable” because it was based on sales reported directly by the industry.

¹⁸³ *Ibid.*, 28

the sportfish numbers were not "precise estimates" and that the margin of error might be large.¹⁸⁴

Despite those cautions, Prof. Knapp told Task Force members that "it seems reasonable to conclude that the average economic impact per harvested salmon is considerably higher for Cook Inlet sport fisheries than for Cook Inlet commercial fisheries."¹⁸⁵ Significantly, as has been pointed out, the ADF&G data Knapp based that assessment on actually overstated the value of Upper Cook Inlet commercial salmon harvests by a factor of more than double.

Allocation Policy Implications of Long-Term Economic Trends in the Upper Cook Inlet Sport and Commercial Salmon Fishing Industries

While the new economic studies by themselves may not be determinative with regard to Upper Cook Inlet salmon allocation policy,¹⁸⁶ combined with other factors they are significant. This report has already discussed the many socio-economic considerations that suggest current Upper Cook Inlet salmon allocations are unfairly disproportionate and likely not producing maximum benefit for Alaska.

Application of some basic economic principles and analysis of long term economic trends for the Upper Cook Inlet salmon fishery also helps illuminate the policy ramifications of future allocative decisions.

¹⁸⁴ *Ibid.*, 35, Knapp stated, however, that "there is no reason to conclude they are too high or too low" and "appear to be generally consistent with other studies (which could have similar biases)."

¹⁸⁵ *Ibid.*, 40

¹⁸⁶ *Ibid.*, Knapp stated that he personally believed the economic studies "provide relatively little if any useful policy guidance (for UCI salmon allocations)."

The Effects of Supply and Demand on Upper Cook Inlet Salmon Fisheries

The most fundamental principle of economics in a market economy is supply and demand. Price, or the economic value of an object, is a reflection of the relationship between those two important variables.

In the case of Upper Cook Inlet salmon values, the implications of supply and demand theory are stark. The radically divergent economic trends of the two segments of the Upper Cook Inlet salmon fishery during the past 15 years demonstrate that the future demand and value for one "use" is likely to continue to increase; while the demand and value for the other "use" is decreasing, or is at best stagnant and likely to remain so. In short, while worldwide demand for salmon sportfishing experiences is steadily growing, the worldwide demand for Alaskan salmon products has been shrinking.

The graph below depicts the relative values of Upper Cook Inlet sportfishing and commercial fishing since 1993.¹⁸⁷

INSERT GRAPH HERE

In essence, Alaska has a tremendous advantage in the global marketplace with regard to the supply of high quality wild salmon sportfishing experiences. In fact, it's near monopolistic as few destinations besides Canada can offer anything remotely similar. Add the close proximity of Upper Cook Inlet salmon sport fisheries to other major

¹⁸⁷ The last major sportfish study was conducted in 1999

worldwide tourist attractions (i.e.: Denali Park and Alaska generally) and the salmon sportfishing experience in Alaska is one that can't be matched *anywhere* – providing our Alaska salmon sportfishing “brand” a huge advantage in the worldwide marketplace.

That advantage is reflected in the significant growth of Alaska sportfishing tourism. During the past 15 years tourist spending on sportfishing statewide has increased from approximately \$199 million in 1993, to \$653 million in 2007.¹⁸⁸ In 2007, statewide tourism spending on sportfishing accounted for 19.2% of all tourism spending in Alaska (\$653 million/\$3.4 billion).¹⁸⁹ That means about one in five of all tourism dollars were spent on sportfishing. Moreover, approximately two-thirds of all nonresident fishing effort (angle days) and three-quarters of all nonresident sportfish spending took place in Southcentral Alaska, generating a \$428 million economic impact to the region.¹⁹⁰ Of that amount, nonresident sportfishing in the Upper Cook Inlet salmon fisheries generated approximately \$209 million and accounted for nearly half of all nonresident fishing days statewide.¹⁹¹ Thus, the economic nexus between state tourism revenues and the appeal of Upper Cook Inlet salmon sport fisheries is significant.

In contrast, the Upper Cook Inlet commercial salmon fishing industry has no dominant position for its product in the world market – and no ability to gain one. The fishery accounts for only about 2% of the total annual Alaska statewide salmon harvest and

¹⁸⁸ 1993 spending inflation adjusted (CPI) would \$282 million in 2007 dollars.

¹⁸⁹ ADF&G, <http://www.sf.adfg.state.ak.us/statewide/economics/>; RDC <http://www.akrdc.org/issues/tourism/overview.html>

¹⁹⁰ Southwick, Assoc., Inc., et al., xiv, xx Table E10

¹⁹¹ *Ibid.*, 91, xiv Table E4

approximately only 5% of the total statewide salmon harvest value. More significantly, in terms of assessing economic potential, the Upper Cook Inlet commercial salmon industry has lost considerable economic value in recent years (as have most Alaskan salmon fisheries) because of dynamic and irreversible changes to the global salmon products marketplace. The introduction of large quantities of farmed fish, particularly farmed coho salmon from Chile, has to a great extent displaced Alaskan wild salmon in the critical Japanese frozen salmon market.¹⁹²

As a 2004 UAA ISER study pointed out:

“In 1980 total world salmon supply was less than 550 thousand tons, of which 98% was wild. By 2001 world supply had more than quadrupled to more than 2.2 million tons, 62% of which was farmed. In 1980, Bristol Bay salmon accounted for 13% of world salmon supply, and the Bristol Bay catch¹⁹³ was a significant factor affecting world salmon prices. By 2001, Bristol Bay accounted for only 2% of world salmon supply, and

¹⁹² See Knapp, *Projections*, ES 3-4, “The Japanese frozen salmon market is the most important market for Bristol Bay sockeye salmon. In the Japanese market, wild sockeye salmon competes directly with farmed coho salmon and farmed trout. The Japanese consider these species to be “red-fleshed” salmon. During the 1990s, Japanese imports of farmed Chilean coho and farmed Chilean and Norwegian trout grew rapidly, while imports of wild sockeye declined. As a result, the share of frozen sockeye in Japanese red-fleshed salmon imports declined from 77% in 1992 to just 21% in 2001.” See also *Ibid.*, IV 9-10, “The most important market for U.S. sockeye salmon is the Japanese frozen market. During the period 1989-1994, about 80% of U.S. sockeye production went to the Japanese frozen market. However, this share has fallen dramatically. . . . Between 2000 and 2002, only about 44% of U.S. sockeye salmon production went to the Japanese frozen market. The second most important market for U.S. sockeye salmon is the UK canned salmon market.”

¹⁹³ At roughly 24 million fish, the Bristol Bay sockeye salmon harvest is roughly six times the average annual Upper Cook Inlet commercial salmon harvest (4.2 million). It also accounts for more than half of all US sockeye harvests in most years. ADF&G harvest data; Knapp, *Projections*, IV 4, IV 5 Table IV-5

Bristol Bay catch (sic) was a far less important factor affecting world salmon prices.¹⁹⁴

While the Upper Cook Inlet salmon industry has some proximity advantages compared to Bristol Bay with regard to the lower-48 fresh salmon market, it has nonetheless suffered along with most Alaskan salmon fisheries because of the glut of farmed fish now on the market. Since reaching a historic high average ex-vessel value of \$108 million during 1986-1992, the Upper Cook Inlet commercial fishing industry's most recent 10-year average ex-vessel harvest value was only \$16.3 million.

Moreover, because about half of Alaskan sockeye salmon is canned,¹⁹⁵ Upper Cook Inlet commercial salmon products¹⁹⁶ must increasingly compete with displaced Bristol Bay

¹⁹⁴ Knapp, *Projections*, ES 2, V 2, "Japanese imports of Bristol Bay sockeye salmon (and other Alaska sockeye salmon) declined dramatically after 1995, while imports of sockeye salmon from Russia increased. As a result, the share of Bristol Bay sockeye in total Japanese sockeye imports fell from 59% in 1995 to only 27% in 2003-04."

¹⁹⁵ *Ibid.*, II-6 Table II-3, US wild salmon has a 70% share of world canned salmon markets, but less than a 15% share of US and world fresh and frozen salmon markets; *Ibid.*; IV-1 "The share of U.S. sockeye salmon production going to fresh markets is increasing, but remains relatively small—less than 6% in 2000-02."

¹⁹⁶ Individual processor data regarding canning percentages is confidential. But Alaska sockeye salmon is increasingly canned. *Ibid.*, IV 1, Footnote 20, "The statewide COAR data show a significant increased (sic) in the canned share of sockeye salmon production since the early 1990s." In 2003, canned salmon represented 40% of all US sockeye salmon exports. *Ibid.*, IV 5, Table IV-2

salmon that was previously sold to Japan,¹⁹⁷ and farmed canned salmon recently introduced into the world canned salmon market.¹⁹⁸

From a basic supply and demand standpoint, therefore, the long term economic prognosis does not look good for the Upper Cook Inlet commercial salmon fishery. Harvest ex-vessel values have fallen dramatically in recent years as world market conditions have rapidly changed and UCI commercial salmon permit values are now at an all-time low.¹⁹⁹ Looking forward, there's no indication that the economic position of the fishery will substantially improve. Without a commanding market share of either Alaska or world salmon supply, the fishery has no ability to affect prices for its products. Steadily increasing competition in the world salmon marketplace also does not bode well for future values of the Upper Cook Inlet commercial salmon fishing industry.

As Professor Knapp pointed out in his 2004 Bristol Bay sockeye study:

“Demand for canned sockeye salmon may be gradually declining. In recent years, prices associated with any given pack volume appear to be lower than they were 10-15 years ago. It is likely that the availability of

¹⁹⁷ Knapp, *Projections*, VI 6, “The decline in Japanese demand for frozen sockeye salmon, in response to lower prices of competing farmed salmon, has caused Bristol Bay processors to reduce frozen production and increase canned production.”; *Ibid.*, VI 1, “In recent years an increasing share of Bristol Bay sockeye salmon has been canned. In 2002, canned salmon accounted for approximately half of total Bristol Bay production.”

¹⁹⁸ *Ibid.*, VI 6, “Another factor that might also have a negative effect on canned sockeye salmon markets in the future is competition from canned farmed salmon. Until recently, very little farmed salmon was canned. However, canned farmed salmon production is increasing, particularly in Chile, as salmon farmers seek new markets in response to falling prices for fresh and frozen farmed salmon. One indicator of growth in canned farmed production is a rapid increase in United States imports of canned farmed salmon from Chile, from 60 metric tons in 2001 to 2961 metric tons in 2003.”

¹⁹⁹ *KRSA Executive Summary*, ES 9: “Current values of commercial salmon permits in Cook Inlet are about one-tenth (10%) of the all-time high values in the late 1980's and early 1990's.”

new, more convenient consumer products is gradually reducing demand for canned sockeye in traditional markets such as the United Kingdom. This could tend to reduce canned sockeye salmon prices over time.”²⁰⁰

Future economic prospects for other potential UCI product lines appear equally problematic and dim.²⁰¹ Prices for Alaska sockeye fillets and headed and gutted frozen products are driven by the Japanese wholesale market and by farmed fish production – and the prices show signs of decreasing, or remaining flat, rather than increasing in the future.²⁰² As Professor Knapp has noted:

“A second--and more subtle--implication of our review of salmon price theory is that farmed salmon has likely changed the long-term dynamics of salmon markets and prices, including Bristol Bay ex-vessel prices. The long-term average price of (Alaska) salmon is likely to move up or down

²⁰⁰ Knapp, *Projections*, VI 6

²⁰¹ This statement is based on the extensive data that has been cited, which is from the 2004 ISER study. To the extent recent ASMI and other Alaska salmon industry marketing efforts based on sustainability and echo-friendly appeal have succeeded, or may succeed in recapturing market share in the future, economic prospects for the UCI commercial salmon industry may improve. But it is unclear to what degree. For the most recent five year period (2003-2007) UCI wholesale salmon prices have increased 19% over the previous five year period (1998-2002). UCI processor wholesale prices for the most recent five year period averaged \$1.99 lb compared to \$1.62 lb in the preceding five years. The reasons for the increase are unknown, as is whether or not the recent increase in price reflects a permanent trend. Source: ADF&G, COAR 4/1/09, *Wholesale Value of Salmon for Upper and Lower Cook Inlet for the Years 1998-2007*.

²⁰² *Ibid.*, V 18. Prof. Knapp concluded that the implications of developing trends in the Japanese market aren't encouraging for Alaska: “Per capita salmon consumption in Japan is very high relative to the United States and most countries in Europe. Salmon is widely available, and consumers are very familiar with salmon. The Japanese population is projected to stabilize or decline in the future. Thus neither total Japanese salmon demand, nor Japanese demand for wild sockeye salmon, seems likely to grow substantially in the future. One potentially important future trend is a shift in salmon reprocessing from Japan to lower-cost countries. Increasingly, farmed trout are being imported from Chile in fillet form. In addition, a growing share of the fish eaten in Japan are being processed in China (although the share of salmon processed in China remains relatively low). Lower foreign processing costs could tend to reduce Japanese prices for value-added salmon products (such as fillets), which could tend to reduce Japanese wholesale prices for headed and gutted salmon (such as Bristol Bay sockeye) sold to Japanese processors. Put differently, any reduction in costs for the salmon which competes with Bristol Bay (Alaska) salmon—including a reduction in costs of reprocessing—could put downward pressure on Japanese wholesale prices.”

with the long-term average price and production costs of competing farmed salmon. In effect, the ability of farmers to expand production at prices above their cost of production is likely to keep long-term average prices for both farmed and wild salmon from rising significantly in the future.”²⁰³

Summary: Policy Implications of Supply and Demand Theory for Upper Cook Inlet Salmon Allocations

Without question, Alaska’s two most valuable renewable resources are tourism and fishing. As one of the world’s last frontiers, Alaska’s tourism potential is unbounded and growing at an exponential rate.²⁰⁴ And as the Northern Economics study pointed out, Alaska’s seafood industry produces over half of all U.S. seafood landings.²⁰⁵ Even when compared to entire nations – Alaska ranks in the top 10 in the world in total seafood production.²⁰⁶ Properly managed, each of those resources will continue to produce tremendous economic yields for the state.

But the relationship of the Upper Cook Inlet salmon fisheries to each of those commodities is substantially different. While salmon sportfishing represents a significant portion of state tourism expenditures, the Upper Cook Inlet commercial harvest represents only 2% of the statewide salmon catch and produces only a small

²⁰³ Knapp, *Projections*, VII 15

²⁰⁴ Between 1993-2007 statewide tourism spending increased from \$653 to \$3.4 billion. The increase is 250% adjusted for inflation (e.g.: \$972 million to 3.4 billion in 2007 dollars). That’s compared to only a 41% general inflationary increase during the same period (based on CPI).

²⁰⁵ Northern Economics Inc., 1

²⁰⁶ *Ibid.*

fraction of Alaska's total harvest value (5%). More significant, the economic value of Cook Inlet commercial harvests have declined 85% from historic highs in the early 1990's – with no indication that the situation will reverse any time soon.

But from a supply and demand standpoint, Alaska has a commodity in wild salmon sportfishing that is truly unique – and thus largely immune to market supply pressures. That's especially true with regard to Cook Inlet, where the waters have been blessed with some of the world's best wild salmon runs – conveniently located at the very doorstep of the state's growing tourism, economic, transportation and population hub. With Cook Inlet, Alaska's ability to “supply” an expanding market with a wild sportfishing experiences with all the comforts of home is almost exclusive – and its value will only increase over time.

In real estate it's generally assumed that the value of a property is equal to its highest and best use. As a matter of policy, Alaska's Constitution requires essentially the same thing – that state resources be managed to achieve “maximum benefit” for Alaskans. In the case of Upper Cook Inlet salmon fisheries, basic supply and demand theory suggests that current allocations may not be achieving that result – and certainly cannot achieve it in the future. Today, 82% of the resource is devoted to a use that produces at most only 17% as much economic impact for the state as other current uses (\$209-\$36.6 million). Looking forward, the basic laws of supply and demand suggest that the potential future economic impacts of each use are diametrically opposed.

In the years ahead the Upper Cook Inlet commercial salmon fishing industry can be expected to generate around \$37 million annually in economic impact for the state. As only a small fraction of Alaska and world salmon supply, the fishery has no ability to affect price and little prospect for future economic growth. Changing world market conditions – particularly the increasing supply of farmed fish products – indicate that price will remain relatively flat. In stark contrast, the Upper Cook Inlet salmon sportfishing industry enjoys a dominant position in a growing niche market. In fact, Alaska's share of worldwide "supply" of that commodity is almost exclusive. In addition, the fishery's close proximity to major Alaska tourist attractions and Alaska's transportation and urban hubs suggests the future economic impact and growth potential of sport uses of Cook Inlet salmon fisheries by both residents and nonresidents is virtually limitless.

That assertion is supported by the fact that the economic impact of sport fisheries is not determined by harvest value (pounds of fish) – but instead by overall participation levels (e.g.: participant spending). To the extent the Cook Inlet sport fisheries are sustainable, well managed and provide a gratifying experience for visitors and residents, use will continue to grow along with population and tourism. So too will the economic benefits to the region and Alaska.

In the past decade alone, proof of that fact has become increasingly visible along the roadways bordering Cook Inlet. Soldotna today bares little resemblance to the small town of just a few years ago and sportfishing related business now dominate the

roadsides from Cooper Landing to Homer. That's anecdotal, but also indicative. Because the "value" a potential buyer places on an Alaska salmon sportfishing experience is intangible, dependent on many factors – some economic and some aesthetic – unlike the inelastic world market value of a pound of salmon. Thus the potential for economic impact from a sport fishery is not limited by the fishery's harvest yield, but by the subjective overall recreational opportunity it represents to a potential buyer. The more unique and gratifying the experience, the higher value the commodity will command. Despite current economic conditions, in the long run that bodes very well for Alaska. As the world becomes more urbanized, the value of a Alaskan wild salmon fishing adventure will only go up.

In addition, because the economic value of sport fisheries are not tied strictly to harvest yields, achieving "maximum benefit" does not require allocation of the entire yield to sport uses. It simply requires managing the fishery for the purpose of maximizing economic benefit "generally." Currently, Cook Inlet salmon fisheries are managed to achieve a very different result. The bulk of the Upper Cook Inlet salmon runs are managed expressly to maximize economic benefit for commercial fishing and 'commercial fishermen.' That narrow policy directive and management approach arguably results in economic inefficiencies that hurt both sectors. And the proof is abundant. Cook Inlet commercial salmon harvest and permit values remain near all-time lows, with roughly 1/3 of the commercial permits not even being fished – despite the fact that 82% of the total harvest is dedicated to commercial fishing. Clearly, current

management practices that utilize the resource at its lowest economic value are not only failing to maximize benefits for Alaska – they are failing to protect the UCI commercial fishing industry.

While a management change designed to maximize “overall economic benefit” for Alaska would result in reallocations to some degree, the process by necessity would also address the core economic problems that have plagued the Upper Cook Inlet commercial salmon fishery for some time. To the extent commercial fishing is necessary to guarantee the sustainability of Cook Inlet salmon runs (to prevent overescapement), or important for maximizing total economic gains from the fishery, the continued viability of the commercial sector would have to be ensured. That might involve buy-backs of some commercial permits to reduce competition and increase profitability and other measures designed to assist the struggling industry.

But the bottom line is that basic supply and demand theory suggests that one use of the Cook Inlet salmon resource has tremendous upside economic potential for Alaska – largely within policy maker’s control – while the other use has virtually no opportunity for future economic growth due to factors beyond its control.

Maximizing Economic Benefit for Alaskans: The Economic Implications of Salmon Allocation Shifts

Combined, the new economic studies and basic economic theory tells us the relative current values and likely future economic growth potential of the two major segments of

the Upper Cook Inlet salmon fisheries. But the data and theories don't tell us whether current allocations are achieving maximum economic benefit – or what combination of future allocations might. It's important to note that while grossly disproportionate, the current allocations are achieving nearly \$1 billion in economic benefit for the region and Alaska. In addition, with the possible exception of Susitna stocks, current management practices also appear to be achieving a reasonable level of yield sustainability.

A key issue in the policy analysis thus has to be whether or not a shift in allocations would actually result in *greater* economic benefit than the current system. A second corollary issue is whether a shift in allocations for that purpose would threaten resource sustainability by allowing too many fish in the rivers.

In his presentation to the Task Force, Prof. Knapp pointed out that allocation of more salmon to the sport/personal use fishery would not necessarily result in proportionately higher economic contributions. Prof. Knapp stated that two of the main reasons are that there's not a "one-to-one tradeoff between commercial and sport harvests," and that reallocation "(wouldn't) give Alaska anglers more money to spend."²⁰⁷ On the former point, there's not a one-to-one tradeoff in commercial and sport harvests. In terms of harvest volume, it's unlikely the sport/personal use sector could ever match the harvest efficiency or sheer volume of catch of the commercial fishing industry. To the extent fewer fish were harvested, there could potentially be some economic loss.

²⁰⁷ Knapp, *Comparison*, 41

At the same time, the intrinsic values of each sector are so fundamentally different that there's not a direct correlation between them in either harvest size or value. Thus an increase in sport allocation might be worth substantially more to Alaska – even if it resulted in fewer fish being harvested overall. To the extent a reallocation resulted in longer sport seasons (mid-late summer sockeye runs), increased bag limits, or a more gratifying overall experience – sport spending would undoubtedly increase. How much is unknown, but given the significantly higher proportionate economic impact from the sport sector already (7-1), it's probable that any meaningful gains in sport fishing opportunity or quality of experience would lead to significant increases in sportfishing participation and spending that would more than offset any loss from reduced commercial harvests. In effect, the reallocation of a tiny fraction of Alaska's total statewide salmon production (less than 1%)²⁰⁸ for the purposes of developing a key sport fishery would produce a disproportionately large economic return.

In addition, while the full economic impact of a reallocation in terms of sportfishing "sales" might not be realized immediately, as will be discussed, increases to allocation for "personal use" would generate significant new economic benefit for Alaskans immediately, as would increases to sport bag limits allowing Alaskans to utilize more of the resource as a food replacement.

²⁰⁸ The total Upper Cook Inlet commercial salmon harvest represents about 2% of the statewide salmon harvest. Thus a reallocation of even 50% in UCI to sport would constitute less than 1% of Alaska's entire statewide commercial salmon harvest.

Without a doubt, over time as word spread about greatly enhanced salmon sport fishing opportunities in Alaska, tourism would increase and so would overall spending on sportfishing by tourists and residents alike. Nonresidents already planning a trip to Alaska for other reasons (i.e.: cruises) might be more inclined to extend trips into Southcentral to experience the fishery and see the nearby attractions of Anchorage. Sportfishing enthusiasts around the globe would also place a high "value" on experiencing a wild Alaskan salmon fishery that was managed specifically with their interests in mind. Thus, implementing a policy change to manage the Cook Inlet salmon fisheries to achieve maximum benefit for Alaska (as opposed to current management designed to benefit "commercial fishing") would likely produce gains in economic impact for the state far in excess of one-to-one (harvest value). Because the Cook Inlet salmon sportfishery is a rare commodity in the world market, its value will only increase in the years ahead. And if we choose to build it – *they will come.*

A larger allocation to sport and personal use would also stimulate greater economic activity within the state. Resident spending would increase as the fishing season would be extended significantly and bag limits increased. The changes would lead to greater resident participation for longer periods of time – and significantly more spending and economic contributions for the Cook Inlet region. The increased spending would also be spread over the entire summer rather than compressed into the "salmon stampedes" currently experienced. That effect of a reallocation would be a significant economic benefit to tourism, hospitality and service related businesses along Cook Inlet.

Moreover, it should be recognized that a policy decision to manage the fishery to achieve maximum benefit would not involve a total reallocation – or anything approaching reallocation proportionate to current resource use (98% sport vs. 2% commercial). To the extent overescapement is a concern, commercial harvests of some level would still be required. Increased allocation for personal use could help maintain maximum escapement thresholds, but commercial harvests would undoubtedly still constitute a significant share of the overall catch. Thus any necessary increase in sport spending required to offset commercial harvest losses would be substantially reduced.

As an example, even a reallocation as large as 50% of the commercial harvest could be offset with an increase of only 8.5% in nonresident sportfish spending.²⁰⁹ In reality it would take less, as the loss of commercial harvest economic value would be offset by increases in *both* resident and nonresident sportfish spending. Thus, a 5% increase in nonresident spending combined with a relatively small increase in resident sportfish spending would likely offset any economic loss that would result from even a major (50%) reduction in the commercial harvest.²¹⁰ While increases in resident spending are

²⁰⁹ 50% of the UCI harvest has a wholesale economic impact value to Alaska of approximately \$18 million. An increase of 8.5% in nonresident Cook Inlet salmon sportfish spending (approx. \$209 in 2007) would generate \$17.8 million.

²¹⁰ For example, in 2007 resident sport anglers spent approximately \$430 million in Cook Inlet salmon fisheries. An increase of only 10% in spending would equal \$43 million in additional sales, or “economic contribution.” Combined with a 5% increase in nonresident sportfish spending (\$10.4 million “economic impact”) that would equal approximately \$53 million in total economic contribution to help offset the loss of the \$18 million currently produced by 50% of the commercial harvest. Given that longer sport seasons and increased bag limits would encourage more fishing trips and spending, it’s reasonable to assume that at least a 10% increase in resident spending would result – especially when you consider that current resident sportfish spending is generated by less than 1/2 of the Cook Inlet population base of potential resource users (134,000 licenses out of 415,000 Cook Inlet population/303,000 adults = 44%). Enhanced sportfishing opportunities would no doubt result in increased resident participation and spending.

economic contributions and not impacts, the spending nonetheless generates significant economic activity. Combined with only marginal increases in nonresident sportfish spending (i.e.: 5%) such increases would offset or exceed the economic impact of even a *major* allocative shift.

Additional Economic Considerations: The Economic Benefits of Personal Use and Sport Harvests to Alaskan Families

The Task Force heard arguments that increasing allocations to sport and personal use wouldn't create additional "economic impact" for Alaska because it wouldn't give Alaskans more money to spend.²¹¹ While true, that interpretation fails to acknowledge the significant overall economic benefit derived from those types of fisheries. To the extent that fish and game resources can be utilized as food replacements, they clearly create the equivalent of wealth in the economy and generate economic benefit for Alaska. Similar to a moose in the freezer, a winter's supply of salmon would allow Alaskans to use their paychecks and "money" for something other than food. As has been noted:

"Noncommercial fishing and hunting figure prominently in the economy and social welfare of many Alaskan communities. Even so, it's a relatively hidden component of Alaska's economy, unmeasured in the state's indices of economic growth or social welfare and neglected in the state's economic development policy. The state has never estimated the amounts of wild fish and game produced and utilized each year in Alaskan communities, though these harvests are of significant economic value.

²¹¹ Knapp, *Comparison*, 41

These wild foods and materials, if absent, would have to be replaced by imported substitutes at some economic and social cost."²¹²

Further, the economic benefit of a salmon harvested by an Alaskan for personal use is essentially the retail value of the fish. The harvester is in effect the consumer. The economic benefit is the retail price the consumer would have paid for that salmon – or minimally – the price they would have paid to feed their family something else for dinner. Thus, the money Alaskans would save by eating salmon instead of hamburger, steak or chicken could be used for other purposes. Increased allocations for personal use and sport fisheries (i.e. higher bag limits) would extend the purchasing power of Alaskan consumers, and the percentage of their paychecks that would have otherwise been spent on groceries could be used for something else.

With retail prices for sockeye salmon averaging between \$6.99 and \$11.99 per pound and chicken and beef products ranging from \$3 to \$11 per pound, the annual economic benefit that could be derived from increases to Upper Cook Inlet personal use allocations for Alaskans would be significant. Further, on a one-to-one harvest basis, the potential economic contributions of personal use allocations would also likely exceed by a wide margin the economic contributions currently produced for the economy by commercial

²¹² Wolf, Robert and Walker, Robert, *Subsistence Economies in Alaska: Productivity, Geography, and Development Impacts*, Arctic Anthropology, Vol. 24, No. 2, 1987, 1

harvests.²¹³ The exact extent to which they might be is unknown, but likely capable of being quantified.

VI. Options to Reduce Allocative Conflict in Cook Inlet: Applicability of the Alaska Limited Entry Act Buy-Back Program

SCR 21 charged the Task Force with investigating the legal and constitutional ramifications of using the commercial fishing permit buy-back program authorized by the Alaska Limited Entry Act²¹⁴ to reduce allocative conflict in Cook Inlet salmon fisheries. To comply, the Task Force requested a report by Commissioner Bruce Twomley²¹⁵ of the Alaska Commercial Fisheries Entry Commission (CFEC). Commissioner Twomley's 14 page written report to the Task Force has been included in full in the appendix of this report.

In essence, Commissioner Twomley advised the Task Force that a buy-back of Cook Inlet commercial fishing permits (driftnet and setnet) is an option that could be used providing the purpose for doing so was consistent with specific statutory guidelines and established legal precedent. Twomley cautioned, however, that even if the purpose satisfied legal requirements, the procedural aspects of implementing a buy-back are complex,

²¹³ According to Prof. Knapp, the total sales of an industry are used to determine both its economic impact and economic contribution. In the case of commercial fishing, total sales are represented by the first wholesale value of the product (processor price). In the most recent ten year period, the average wholesale value of a pound of sockeye salmon was \$2.30 lb. Thus, compared to even the price of a pound of hamburger (\$3.19 lb) it appears that personal use allocations would generate a significantly higher economic contribution. Knapp, *Comparison*, 24

²¹⁴ AS 16.43.010 – AS 16.43.990

²¹⁵ Commissioner Twomley was first appointed to the CFEC in 1982 by Governor Hammond. Since that time, he has frequently reported on the buy-back program to the legislature and BOF. Additionally, Commissioner Twomley is the principle author of the only CFEC optimum number decision upheld by the Alaska Supreme Court in *Simpson v. State*, CFEC, 101 P.3d 605 (Alaska 2004).

cumbersome and problematic with regard to Cook Inlet salmon fisheries. Twomley's report on each of those aspects of a buy-back program is summarized below.

Constitutional and Statutory Framework

Twomley stated that "the function of a voluntary buy-back program under the Limited Entry Act is to reduce the number of limited entry permits in a commercial fishery to a number considered optimum for the fishery's long-term benefit."²¹⁶ From a Constitutional standpoint, a buy-back program would have to be consistent with Article VIII, Section 15 which specifically authorizes the State to limit entry into any fishery for purposes including "to prevent economic distress among fishermen and those dependent upon them for a livelihood."

As Twomley noted, the remedy should be used with caution as it raises serious Constitutional issues. "A limited entry program should impinge on the open-to-entry principles of the Constitution as little as possible. In the event a fishery does become too exclusive, the commission is required to put more permits back into the fishery."²¹⁷ He added that to attempt to ensure the constitutionality of a buy-back program, CFEC would first have to perform an "optimum number study" to determine the optimum number of permits for the fishery.²¹⁸ For Cook Inlet, he indicated CFEC would need at least a year and one-half to perform such a study. Even then, the program could ultimately be

²¹⁶ Twomley, 4; AS 16.43.290 – 16.43.330

²¹⁷ Twomley, 5

²¹⁸ As required by AS 16.43.290 and articulated in *Johns v. CFEC*, 758 P.2d 1256, 1266 (Alaska 1988)

overturned by a court if the court determined the fishery had become too exclusive as a result of the buy-backs.²¹⁹

Twomley summarized the statutory²²⁰ requirements of a buy-back program as follows:

“The statutory purposes that must be served by a buy-back program are to produce a well conserved, economically healthy fishery with a sufficient number of participants to protect the reliance interests of those dependent on the fishery. The statutory purposes also suggest a long-term commitment to the well-being of the fishery and its participants.”²²¹

Procedural Considerations of a Buy-Back: The Cook Inlet Regulatory Environment

As noted, Twomley stressed that any buy-back program under the Limited Entry Act is a “cumbersome and issue-laden remedy.”²²² There are a number of legal and procedural hurdles to clear that require some time and careful analysis. In the case of Cook Inlet salmon fisheries, he indicated the procedural aspects of a buy-back program could be even more daunting. He noted that CFEC has never performed an optimum number study for a set net fishery and that doing so could be “problematic” because of the way set net fisheries record harvest data.²²³ In addition, he characterized regulatory treatment of Cook Inlet salmon fisheries as “a moving target” that makes performing an optimum number analysis very difficult.²²⁴ In determining the optimum numbers of permits for a fishery, CFEC gathers data to create models that attempt to anticipate the effects of

²¹⁹ Twomley, 5

²²⁰ AS 16.43.290

²²¹ Twomley, 7

²²² *Ibid.*

²²³ *Ibid.*, 6

²²⁴ *Ibid.*

known variables that respond to natural and market conditions. But frequent Cook Inlet regulatory changes and commercial restrictions artificially reduce harvest volume and make predicting price very difficult.²²⁵ As Twomley noted, "projecting the effects of this variable (regulatory intervention) into the future would be very difficult and could undermine the utility of an optimum number study."²²⁶

Another procedural hurdle would be funding the buy-back program. Under the Limited Entry Act buy-back programs are entirely voluntary²²⁷ and funded through assessments on remaining permit holders of up to 7% of their gross earnings.²²⁸ Twomley pointed out that statute does not provide an automatic funding mechanism for buy-backs and a state investment in the form of a loan would be required to front-load the program. The loan could then be repaid over time by assessments on remaining permit holders. Twomley believes that without a state loan to frontload the buy-back, a program would attract little support from permit holders.²²⁹

Private Alternative: Twomley also informed the Task Force that the Limited Entry Act also provides a less cumbersome private alternative to a formal buy-back program. AS 16.43.150(i) allows any permit holder to voluntarily relinquish their permit back to the state; and allows anyone to pay a permit holder for doing so. Twomley noted that only

²²⁵ *Ibid.*

²²⁶ *Ibid.*

²²⁷ AS 16.43.300(b)

²²⁸ AS.16.43.310(b); Twomley, 5, "However, actually imposing a tax on permit holders already suffering from economic pressure would be difficult unless a referendum of the affected fishermen supported the measure. By analogy, the legislature required a favorable vote by 2/3's of all permit holders before a salmon fishery association could institute an assessment for the purpose of fleet consolidation (AS 43.76.230)."

²²⁹ Twomley, 6

buy-back program undertaken in the State so far utilized that statutory vehicle recently to retire 35 permits from the Southeast salmon purse seine fishery.²³⁰ He cautioned, however, that even that approach is subject to the same Constitutional exclusivity issue.²³¹

Analysis: The Constitutional and Procedural Implications of a Cook Inlet Buy-Back Program

Constitutional/Statutory Analysis: It seems highly unlikely that a voluntary buy-back program implemented for Upper Cook Inlet would be overturned by a court on constitutional or statutory grounds. To the contrary, a strong legal argument can be made that application of Article VIII, Section 15 and AS 16.43.290-300 to the facts and economic circumstances existing in the UCI commercial salmon fishery suggest there is an expectation – if not statutory *obligation* – that the Limited Entry Commission take action to reduce the number of permits to assist struggling commercial fishermen. That argument is valid, regardless of whether a reallocation occurs.

From a Constitutional standpoint, it's clear that the framer's intended that Alaska should benefit to the fullest extent possible from the ongoing development and utilization of its resources. The Constitution states that natural resources are reserved for the "common use" and should be utilized to the fullest extent possible consistent with the public interest

²³⁰ *Ibid.*, 7

²³¹ *Ibid.*, Constitution, Art. VIII, Sec. 15

to achieve maximum benefit for Alaska.²³² With regard to fisheries specifically, strong Constitutional provisions were included to prevent a recurrence of the abuse that occurred during Territorial days when Alaska's salmon fisheries were monopolized by a few Outside processors who nearly destroyed the resource. Thus Art. VIII, Section 15 makes it clear that there can be "no exclusive right or special privilege of fishery." The *only* exceptions to that policy are where limited entry is necessary to conserve the resource; prevent economic distress to fishermen; or promote aquaculture.²³³

Applying those Constitutional principles to an Upper Cook Inlet buy-back program, it's inconceivable that a court would overturn a legislative effort designed to rebalance the fishery by reducing commercial permits in order to increase overall public utilization and benefit derived from the resource. Those are the very goals frequently articulated in the Constitution. The framers clearly understood that the process of maximizing resource use and benefit would involve tradeoffs between potential beneficial users – and require ongoing policy decisions by the legislature. In fact, the Constitution expressly requires the legislature to take an active role in managing state resources. Article VIII, Section 2 dictates: "The legislature *shall* provide for the utilization, *development*, and conservation of all natural resources . . . for the *maximum benefit of its people*" (emphasis added).

²³² *Ibid.*, Secs. 1, 2, 3. Article VIII is replete with pro-development, inclusive phrases. For example, Sec. 1, Statement of Policy: "It is the policy of the State to encourage . . . the development of its resource by making them available for *maximum use* consistent with the *public interest*;" Sec. 2: "The legislature *shall* provide for the utilization, *development* and conservation of all natural resources . . . for the *maximum benefit of its people*;" Sec. 3: "Fish . . . are reserved to the people for *common use*." (all emphasis added)

²³³ *Ibid.*, Sec. 15

Given that mandate and separation of powers doctrine generally, it seems unlikely that a court would usurp the Constitutional legislative prerogative to make such policy decisions.

Moreover, Article VIII, Section 15 of the Constitution expressly authorizes a buy-back in the present situation for two reasons. First, it allows limiting entry to "prevent economic distress among fishermen and those dependent upon them for a livelihood." Second, it also allows restricting entry to a fishery for the purposes of conserving of the resource. A Cook Inlet buy-back program could be justified on each of those grounds.

Undeniably, the situation in the Upper Cook Inlet commercial salmon fishery has created economic distress among fishermen. The fishery is seven times more crowded than other Alaskan salmon fisheries based on the ratio of permits issued to poundage caught.²³⁴ Increased farmed fish production and other dramatic changes in world markets have caused harvest and permit values to plummet, and they are now only a fraction of what they were just a few decades ago.²³⁵ As a result, about 1/3 of Upper Cook Inlet

²³⁴ In Cook Inlet 25 commercial salmon permits are fished for every 100,000 pounds of fish harvested, compared to 3 permits fished to harvest the same amount in other Alaskan salmon fisheries. Source: *KRSA Executive Summary*, ES 6, "Comparison of Upper Cook Inlet percentages of commercial salmon caught and permits fished statewide indicate that commercial salmon fishing effort is disproportionately concentrated in Upper Cook Inlet."

²³⁵ *KRSA Executive Summary*, ES 9: "Current values of commercial salmon permits in Cook Inlet are about one-tenth (10%) of the all-time high values in the late 1980's and early 1990's." Ex-vessel harvest values average around \$16.3 million. That figure represents a steep decline in harvest values equaling only 15% of the highest historic annual values for UCI salmon harvests, which averaged \$108 in value per year during 1986-1992. For current Cook Inlet commercial drift and setnet harvest and permit values and values during 1998-2007, see Twomley, Attachments A-B

salmon permits are not even being fished.²³⁶ And all of those negative economic conditions exist despite the fact that the UCI commercial fishing industry is allocated 82% of the salmon resource. Thus, even without a reallocation, a strong argument can be made that a Cook Inlet buy-back program is justified and necessary.

The argument that because of Section 15 you could not buy-back permits because it would make the fishery too "exclusive" is a narrow interpretation/circular logic and misses the Constitutional forest for the trees.

Harvest ratio 7 times the statewide average (24-100,000 pounds v. 3 per statewide)

Allocations way out of whack, maximum benefit or utilization not being achieved.

This analysis is also strongly supported by statute. Section 16.43.300(b) . . .

Procedural: Beggars the question, if the statute is so flawed and has never been used, why has it never been changed? Clearly the Constitutional mandate is not being fulfilled and those dependent on fishing for a livelihood are suffering as a result.

Chicken and egg. You can't reduce the permits because it will make the fishery too exclusive. But the fishery is already too exclusive and the only way you can correct it is

²³⁶ In 2007, only 900 commercial permits were fished out of 1309 issued for Upper Cook Inlet. Source: Twomley, Attachments A 1, B 1

by reducing the permits (to expand overall participation). A reallocation of the resource forces the issue. Article 15 and AS 16.43.300(b) are then mandated to protect the fishermen, who have been miserably failed by the current system. The system is broke – and that's one way to fix it. Right now 1/3 of Cook Inlet permits are not even fished. Thus the fishery is on its own is becoming "more" exclusive. In time, the number of fished permits will dwindle even further – until the fishery finds a natural balance. But that Darwinian approach provides NO protection for current permit holders and their families who are struggling to stay afloat. Limited Entry and the buy-back program is the lifeboat the Constitution provided for fishing families when economic conditions threaten their survival. But in Cook Inlet, nothing whatsoever is being done to help them. The situation in the fishery arguably already violates the Constitution for both being "too exclusive" and for not taking steps to ensure the continued viability of an "optimum number" of commercial permit holders. That optimum level can only be established by analysis of all Constitutional and statutory requirements governing utilization of the resource. Not just the number of commercial fishing users. Once the overall resource use-benefit analysis has been completed, the buy-back program is a necessary tool to implement desired policy changes while protecting those traditionally reliant on the resource. To not use it is inexcusable – and leaves fishing families adrift in stormy economic seas over which they have no control.

In light of current grossly disproportionate salmon allocations in Cook Inlet, with 82% of the resource allocated to less than 3% of the users, it's hard to imagine That's especially

true when one considers the equally disproportionate economic benefit currently being generated by the two segments of the fishery (\$630 million sport - \$31 commercial). Further, without exception, analysis of each of the allocative statutory guidelines listed in AS 16.05.251(e) also suggests that current Cook Inlet salmon allocations are not achieving "maximum benefit" for Alaska – in large part because the current "use" of the resource has become too exclusive given significant demographic changes in the region.

Thus a strong legal argument can be made that current allocations already run afoul of Article VIII, Section 15 itself, which establishes first and foremost that "No exclusive right or special privilege of fishery shall be created or authorized in the natural waters of the State." Section 15 qualifies that clear prohibition only to the extent it authorizes the State to "limit entry" into a fishery for only the following three specific purposes: 1) to conserve the resource; 2) to prevent economic distress among fishermen; or 3) to promote aquaculture. Those are the *only* exceptions to the strong Constitutional prohibition against in Section 15 against