AGENDA B-1
OCTOBER 2003

Executive Director's Report

DPSEIS comment period extension

NMFS was recently requested by a number of environmental and community organizations to extend the public comment period on the draft programmatic SEIS for the groundfish fisheries. After consulting with the Council's DPSEIS Steering Committee, the agency decided to extend the comment period for an additional three weeks, until November 6, 2003 (see letter under B-1(a)).

Executive Session - audit report

As required under the terms and conditions for our federal funding awards, we recently completed a biennial financial audit, covering all of the Council's funding awards. KPMG, who acquired the firm Delloite-Touche last year, will provide a report to the Council during Executive Session later this week. Once you receive that report, you can join me in publicly congratulating Gail Bendixen on her continued outstanding job tracking all of these awards, and the attendant budgeting and bookkeeping.

Whaling article

In a recent Council mailing I included an article recently published in the Proceedings of the National Academy of Sciences (PNAS), by Springer et al, titled 'Sequential megafaunal collapse in the North Pacific Ocean: An ongoing legacy of industrial whaling?' I included that article under the ED report as well (B-1(b)), given its potential importance in understanding the causes of Steller sea lion decline, and other issues. Essentially, this article supports the hypothesis of a 'top-down', predation-induced cause of declines in marine mammal populations, triggered by industrial whaling which in turn drove killer whales to seek alternative prey.

NAS response on best science

The National Academy of Science is conducting a study on the use of 'best scientific information available', and held workshops in Washington DC last month. I was invited but unable to attend, though former Council member David Fluharty did attend, along with a number of other folks from various regions. His powerpoint presentation is attached (B-1(c)). Also attached is my preliminary response to the questionnaire they distributed to each of the Councils (B-1(d)).

Status of crab EIS

In June you voted to delay release of the crab FMP EIS, which includes further evaluation of the draft preferred alternative for crab rationalization, until Congressional action this fall. We are finalizing that EIS document and anticipate that it could be available for initial Council review at the December meeting, if Congress acts by early November (to accommodate meeting and agenda notice requirements).

Funding support for Board of Fish

Item B-1(e) is a recent letter from the Commissioner of ADF&G requesting Council funding support for the Board of Fisheries (BOF), to facilitate their review of alternatives and options relative to state waters fisheries under our GOA rationalization initiative. We could provide such funding ($25,000 is requested) from our special NEPA funding, a good portion of which has been earmarked for work on the GOA rationalization project, if the Council believes this is an appropriate expenditure. We have an Executive Session and Finance Committee scheduled later this week and will discuss this request at that time.

The BOF Task Force will consist of two BOF members and approximately 10 stakeholders and will meet between now and early 2004, to examine possible actions the BOF may take to reconcile management of state waters fisheries. We can provide additional information on this process under the C-1 agenda item, but the Council may want to discuss how we will interact with that BOF process.

Comment on Information Quality Act

In a recent Council mailing, and again under B-1(f), I have included a copy of a FEDERAL REGISTER notice requesting comment on a proposed bulletin, by OMB, relative to requirements for an independent scientific peer review process of all data, information, and analyses pursuant to federal regulatory actions (related to implementation of the Information (Data) Quality Act). In plainspeak, the proposed guidance would require the recruitment of independent peer review panels to review the basis, and analyses, for many of the actions we take, with significant, potential implications for our process. I am working with NMFS staff to ascertain whether my initial read, and my initial concern, are warranted. A discussion paper on this issue, prepared by NMFS Sustainable Fisheries Division staff, is under B-1(g). In the meantime I wanted to get this distributed to all of you. Comments are due by December 15. I propose that I work on draft comments for your review at the December meeting, and that we also request the SSC to review and provide comments which could be finalized in December, in time to meet the comment deadline.

MSC Pollock certification

Item B-1(h) contains a press release regarding an initial determination from the Marine Stewardship Council (MSC) certifying that the BSAI pollock fishery is responsibly, sustainably managed. Many folks have been working to achieve this certification for over two years. While this is a preliminary determination, I thought it warranted mention here. A similar report for the Gulf of Alaska pollock fishery is expected soon.

DC Conference in November

Whew! A lot of work has gone into this effort, and there is plenty more to do, but things are really coming together and we are expecting a huge turnout. I will not recap all of the meetings and conference calls that have occurred over the past few months with our Organizing Committee, but I can tell you that we have several great keynote speakers confirmed (including Senator Stevens),

media events lined up, and the panelists and panel moderators are settled and getting organized. Please visit the conference WEB-site at www.managingfisheries.org. It is being updated regularly and by this week should include the list of panelists. We also have a conference brochure that should be ready for distribution this week. I will be working with our Council DC committee, our staff, and NMFS staff on our regional paper and presentation. Over 300 persons have registered for the conference to date and I get dozens of inquiries every week about the conference, from various individuals and organizations. It really looks like this is going to be a landmark event for the Councils and NOAA Fisheries. If you are a panelist your registration is taken care of; otherwise, you need to get registered if you are planning to attend.

NMFS letter to crab industry

B-1(i) is an open letter from Dr. Gary Stauffer, Director of the Resource Assessment and Engineering Division and the Alaska Fisheries Science Center, to the Bering Sea crab industry, noting the Center's interest in working on a cooperative research program with the industry and ADF&G. This program is intended to utilize the resources of the private sector to better survey fisheries resources. This program will require establishment of a non-profit foundation, and development of an MOU between them and the management agencies. Gary is the contact for those interested in further development of this program.

Farewell and good luck to Mike Payne

Mike Payne, as most of you know, is leaving the Alaska Region to go back to Headquarters in DC. Not sure why he wants to do that, but I want to wish him the best, and recognize him for his accomplishments while here in Alaska. He has always been willing to work with the Council process, and exhibited great flexibility in accommodating that process through the Steller sea lion EIS/RPA process, while also providing the Council with a refreshing frankness and humor. Speaking for the staff perspective, he has been an absolute pleasure to work with. Good luck Mike, we will miss you!

New look for Council WEB-site

Shortly following this meeting we expect to unveil a new format for our Council WEB-site. Maria Shawback has put a tremendous amount of effort into this project, and we think the result will be a better organized, more aesthetically pleasing site with easier access to all of the documents and information. We are proud of this effort and expect that you will be as well. Look for it in the next few weeks.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
P.O. Box 21668
Juneau, Alaska 99802-1668

AGENDA B-1(a)
OCTOBER 2003

September 18, 2003

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N.P.F.M.C

Kris Balliet
Alaska Region Director
The Ocean Conservancy
425 G Street, Suite 400
Anchorage, Alaska 99501

Dear Ms. Balliet:

Thank you for your letter requesting that the comment period for the Draft Supplemental Environmental Impact Statement for North Pacific Groundfish Fisheries be extended. We are extending the end of the comment period through November 6, 2003.

Please contact me at 907-586-7221 if you have further questions on this issue.

Sincerely,

James W. Balsiger
For Administrator, Alaska Region

cc: AKR Records
Chris Oliver, North Pacific Fishery Management Council
Jim Ayers, Oceana
Dorothy Childers, Alaska Marine Conservation Council
Peter Van Tuyn, Trustees For Alaska
Gerald Leape, National Environmental Trust
Peter Huhtala, Pacific Marine Conservation Council
Jeremy Linneman, One Earth One Justice
Caroline Kennedy, Defenders of Wildlife
Eric Jorgensen, Earthjustice Legal Defense Fund
Irene Alexakos, Sierra Club
Oliver Waldman, Salmon For All
Josh Laughlin, Cascadia Wildlands Project
Corre Bosman, Center For Biological Diversity
Mark Spalding, Alaska Oceans Program
Bob Shavelson, Cook Inlet Keeper

Sequential megafaunal collapse in the North Pacific Ocean: An ongoing legacy of industrial whaling?

A. M. Springer[a,b], J. A. Estes[c], G. B. van Vliet[d], T. M. Williams[e], D. F. Doak[e], E. M. Danner[e], K. A. Forney[f], and B. Pfister[g]

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Communicated by Robert T. Paine, University of Washington, Seattle, WA, August 11, 2003 (received for review June 1, 2003)

Populations of seals, sea lions, and sea otters have sequentially collapsed over large areas of the northern North Pacific Ocean and southern Bering Sea during the last several decades. A bottom-up nutritional limitation mechanism induced by physical oceanographic change or competition with fisheries was long thought to be largely responsible for these declines. The current weight of evidence is more consistent with top-down forcing. Increased predation by killer whales probably drove the sea otter collapse and may have been responsible for the earlier pinniped declines as well. We propose that decimation of the great whales by post-World War II industrial whaling caused the great whales' foremost natural predators, killer whales, to begin feeding more intensively on the smaller marine mammals, thus "fishing-down" this element of the marine food web. The timing of these events, information on the abundance, diet, and foraging behavior of both predators and prey, and feasibility analyses based on demographic and energetic modeling are all consistent with this hypothesis.

The abrupt decline of the western stock of Steller sea lions (*Eumetopias jubatus*)[h] across most of the northern North Pacific Ocean and southern Bering Sea is one of the world's most well known yet poorly understood marine conservation problems. For years, scientists attributed this decline to nutritional limitation, the presumed consequence of a climate regime shift and/or competition with regional fisheries (1). Although fisheries and regime shifts undoubtedly influenced both the fishes and their associated food webs (2–5), several recent reviews of the available information on sea lions and their environment, including an assessment by the National Research Council, cast doubt on the nutritional limitation hypothesis (6, 7), notwithstanding evidence from field and laboratory studies that diet quality is a factor in sea lion energetics (8). The doubt stems from three main findings. First, most measures of behavior, physiology, and morphology from surviving adult sea lions and pups in the western Gulf of Alaska and Aleutian Islands are inconsistent with nutritional limitation. These animals have better body condition, reduced foraging effort, and reduced field metabolic rates relative to similar measures from the increasing sea lion population in southeast Alaska (7). Second, sea lion prey is abundant in most areas of the decline (9). Known changes in prey availability and other features of the oceanic ecosystem are particularly incongruous with the most precipitous phase of the decline, which occurred during the mid- to late 1980s, and can be accounted for only by greatly increased adult mortality (6). Third, populations of piscivorous sea birds, many of which feed on earlier life stages of the same fish species consumed by sea lions, have remained stable or increased in the same area and over the same period that the sea lions have declined (10). Top-down forcing now appears to have been an important contributor to declines of Steller sea lions and other marine mammal populations in the region (6). Likely top-down forcing factors include purposeful shooting, incidental mortality in fishing gear, and predation. We will suggest that increased predation was paramount among these factors, and that altered food web dynamics brought about by human overharvesting initiated the change.

A Megafaunal Collapse. Steller sea lions are only one of several marine mammal species in the far North Pacific region whose numbers have crashed in recent decades. Northern fur seal (*Callorhinus ursinus*), harbor seal (*Phoca vitulina*), and sea otter (*Enhydra lutris*) populations have also fallen precipitously. Causes of the pinniped declines are poorly known, except that incidental mortality from commercial fishing activities and intentional harvesting in the 1960s and early 1970s appear to explain substantial portions of the initial declines. The failure of these factors to explain the continued rapid collapses, the failure of the nutritional limitation hypothesis to explain the decline of the western stock of Steller sea lions, the recent demonstration that harbor seals thrive on prey with a wide range of nutritional quality (11), and the discovery that killer whales (*Orcinus orca*) were likely responsible for the sea otter decline (12), led us to suspect that the pinniped declines also were caused by increased killer whale predation.[i]

If this explanation is indeed true, why did it occur? We propose that decimation of the great whales during the modern era of industrial whaling ultimately caused the declines by forcing the great whales' foremost natural predators, killer whales, to turn elsewhere for food.

Killer Whales Prey on Great Whales. Our hypothesis rests on the supposition that the great whales were an important prey resource for killer whales before industrial whaling severely reduced their numbers. Although there is debate over the nature and importance of killer whale predation on great whales (13, 14), this supposition is supported by several lines of evidence. Killer whales are known to attack and consume all species of great whales (15, 16). Such attacks have been observed regularly in modern times, despite the reduced abundance of most great whale stocks. Early whalers apparently recognized the importance of killer whale–great whale interactions: historical accounts from that era referred to these animals as "whale killers," a term that later was transposed to killer whales (17). Scars and rake marks from the teeth of killer whales on living great whales support the idea that killer whale attacks are fairly common (18), although the rate of scarring appears to vary by region and species. Measured scarring on 20–40% of the individuals in some

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[h]Steller sea lions range across the North Pacific Ocean from California to Japan. The western stock of this species, which ranges westward from Cape Suckling (longitude 144° W), was listed as Endangered under the U.S. Endangered Species Act in 1997.

[i]The absence of beach-stranded carcasses is one of the most intriguing and perplexing features of these declines. Sea otter mortality from nutritional limitation, disease, and pollution typically results in large numbers of stranded carcasses. Pinnipeds often sink when killed at sea, although many such individuals float to the surface and wash ashore later. Malnourished or diseased pinnipeds commonly haul out to die. The near absence of stranded carcasses and a lack of reports of distressed animals on beaches or of emaciated animals taken by subsistence hunters thus are most consistent with losses to predators.

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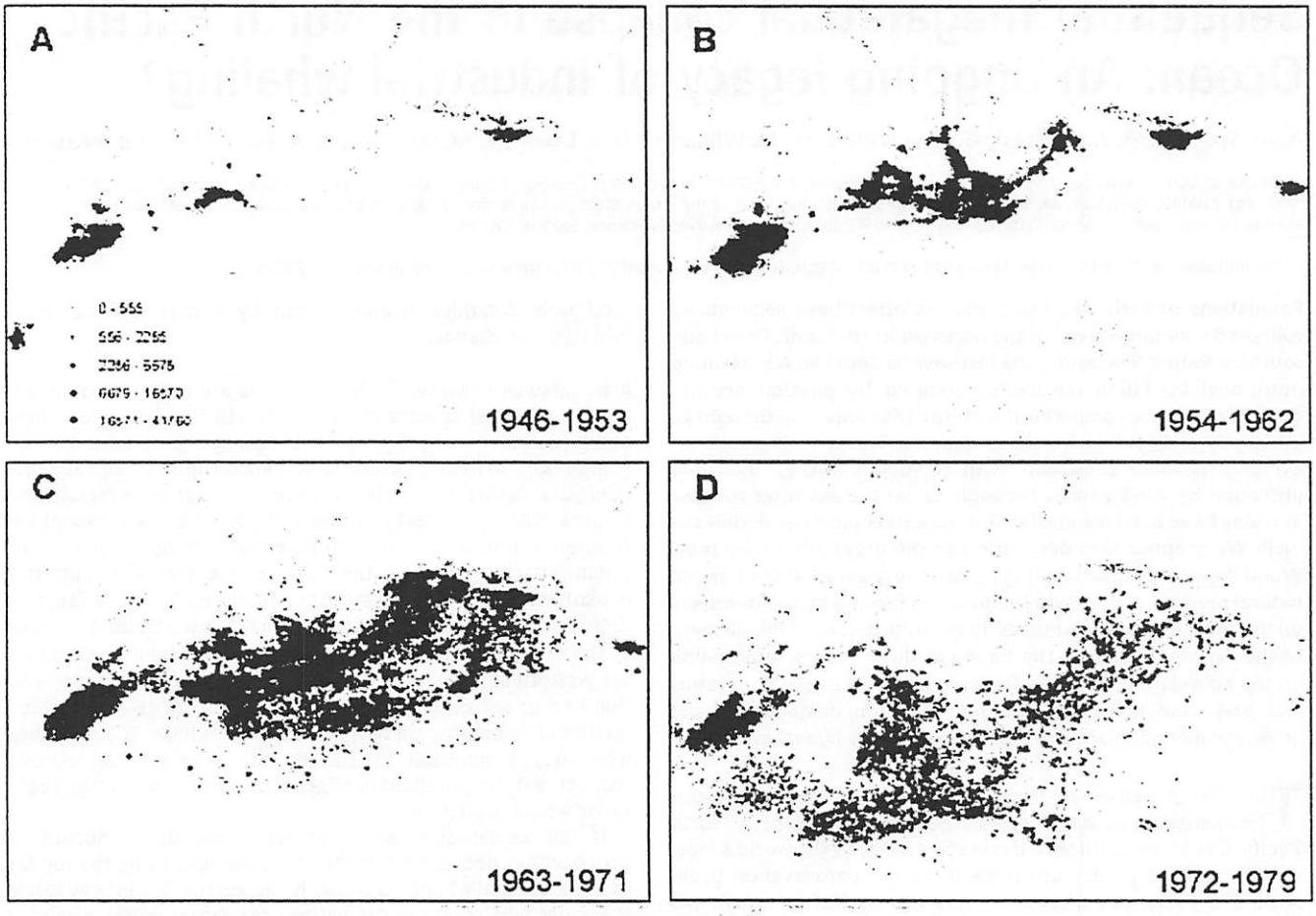

Fig. 1. Geography of reported whale harvests (all species) in the North Pacific Ocean and Bering Sea from 1946 through 1976. Data (latitude/longitude and number of individuals) are from International Whaling Commission records and are binned by sequential 7- to 8-year intervals to show temporal trends.

large whale species is not unusual; the highest known scaring rate is >60% reported for sperm whales in the southern ocean (19).

Several features of great whale life history and behavior may also function to reduce the likelihood of killer whale predation. For instance, sperm whales, long thought to be immune to killer whales, are now known to be preyed on by them and to assume stereotypical formations to ward off the attacks (20, 21). Many large whale species migrate from high-latitude feeding grounds to low-latitude calving grounds. Because of their very large size, this behavior does not confer a thermal benefit or energy saving, even to calves (13). The lack of thermal benefit raises the question of why large whales undertake such long migrations to nutritionally impoverished tropical oceans. Corkeron and Connor (13) contend this behavior may substantially reduce losses from killer whale predation by placing the most vulnerable newborns in environments where killer whales are comparatively rare. Likewise, the northward migration of bowhead whales (*Balaena mysticetus*) from wintering and feeding areas in the extremely productive northwestern Bering Sea to summering areas in the comparatively impoverished Beaufort Sea may reduce their exposure to killer whale predation (22). It has been further suggested that the failure of bowheads in the eastern Canadian Arctic to recover from commercial whaling is due in part to predation by killer whales (23, 24).

Industrial Whaling in the North Pacific Ocean. Modern industrial whaling in the North Pacific Ocean began in the late 1940s as Japan and the Soviet Union turned a maritime technology that developed during World War II toward postwar economic growth. Several species, including North Pacific right whales (*Eubalena japonica*), bowhead whales, humpback whales (*Megaptera novaeangliae*), blue whales (*Balaenoptera musculus*), and gray whales (*Eschrichtius robustus*), were depleted some 50–100 years earlier (25–27), but the more abundant fin whales (*Balaenoptera physalus*), sei whales (*Balaenoptera borealis*), and sperm whales (*Physeter macrocephalus*) were not exploited in large numbers until after the war. Our analysis of the depletions is based on International Whaling Commission records, which include geographical coordinates and species of all legally killed whales reported by whaling nations. These "official" records minimize the true magnitude of the catch in the North Pacific because of underreporting by the Russian fleet, by as much as 60% in the case of sperm whales taken between 1949 and 1971 (28), and because some unknown proportion of all kills were animals that were struck and lost. Nonetheless, the data provide a reasonable indication of the timing and spatial pattern of the whale declines.

Early postwar whale landings were mostly from the far western North Pacific Ocean (Fig. 1*A*), presumably because at the time, Japan was the region's only significant whaling nation, and great whales were still abundant throughout the North Pacific; thus, the Japanese whalers did not have to venture far from their home ports. Other nations, mainly the Soviet Union, subsequently entered the whale fishery. As stocks close to the home ports were progressively reduced, the fishery spread eastward and intensified (Fig. 1 *B* and *C*). By the early 1970s, the whaling industry had

abandoned this region because of severely depleted stocks and catch restrictions imposed by the International Whaling Commission and moved south into the central North Pacific (Fig. 1*D*) to exploit smaller Bryde's whales (*Balaenoptera brydei*) and female sperm whales.

The vast majority of whales were removed from rich summer feeding grounds in a small portion of the northern North Pacific Ocean and Bering Sea. In waters within 370 km (200 nautical miles) of the Aleutian Islands and north coastal Gulf of Alaska alone, a minimum of 62,858 whales and an estimated 1.8 million tonnes of whale biomass were taken between 1949 and 1969. As a measure of the magnitude of change in whale abundance in this region over this time, only 156 whales were harvested there after 1969. Altogether, at least a half million great whales were removed from the North Pacific Ocean and southern Bering Sea during this period. By the mid-1970s, all great whale stocks in the North Pacific Ocean were severely diminished. Although some species have exhibited remarkable recoveries (e.g., gray whale and humpback whale), the combined current biomass (1990s and early 2000s) is estimated to be only ≈14% of preexploitation levels (29).

The extreme, rapid, concentrated reduction of whale biomass from the northern North Pacific Ocean must have profoundly influenced the workings of the ecosystem by altering population level interaction strengths of two general kinds: those extending downward in the food web from the great whales to their prey and those extending upward in the food web from the great whales to their predators. Our focus is on the potential consequences of altered interaction strengths between the great whales and their predators.

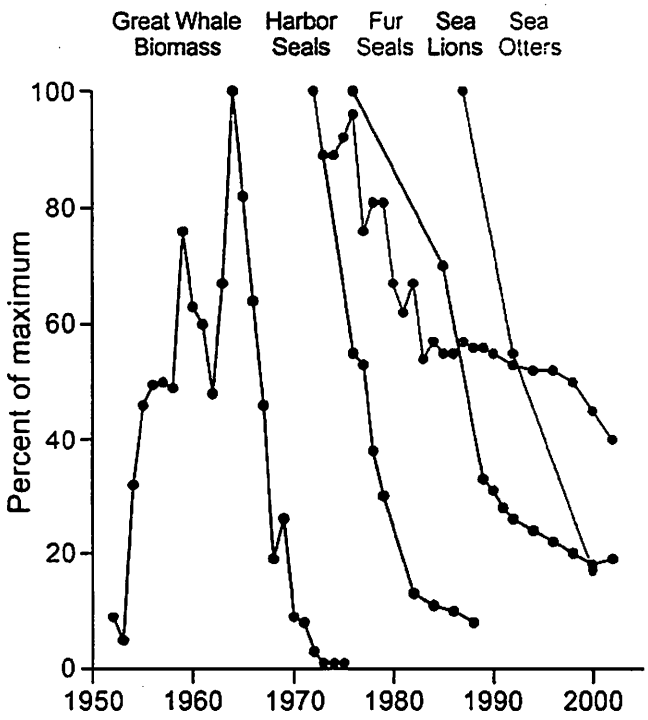

Fig. 2. The sequential collapse of marine mammals in the North Pacific Ocean and southern Bering Sea, all shown as proportions of annual maxima. Great whales: International Whaling Commission reported landings (in biomass) within 370 km of the Aleutian archipelago and coast of the western Gulf of Alaska. Harbor seals: counts of Tugidak Island (37). Fur seals: average pup production on St. Paul and St. George islands, Pribilof Islands (from ref. 38 and A.E. York, personal communication). Steller sea lions: estimated abundance of the Alaska western stock (from ref. 39). Sea otters: counts of Aleutian Islands (from ref. 40). For fur seals and harbor seals, 100% represents population sizes at the time effects of excessive harvesting ended and "unexplained" declines began.

Response of Killer Whales to Whaling. Before commercial whaling, the great whales likely provided an important food resource for killer whales in the North Pacific Ocean, just as gray whales do today along their eastern Pacific migratory route (30–32). Killer whales are organized around cultural matrilines with foraging preferences that define distinct ecotypes (33). Three killer whale ecotypes are recognized in the eastern North Pacific Ocean: transients, which feed largely on other marine mammals; residents, which feed largely on fish; and offshores, whose diet is less known (34, 35). Shifts in diet within specific ecotypes are known or suspected. For example, in the Southern Ocean, one particular ecotype (or species) feeds mostly on large cetaceans at high latitude during the austral summer and pinnipeds, fish, and squid at lower latitude during the austral winter (36). Because mammal-eating killer whales in the North Pacific feed on a wide variety of marine mammals, and because killer whales alter their diets in response to changing prey availability, the decline of great whales could have led to increased consumption of other marine mammal species by at least some of the whale-eating killer whales.

The sequential declines of pinnipeds and sea otters after human depletion of the great whales (Fig. 2) are consistent with this expectation. Pinniped populations in the Aleutian Islands, Bering Sea, and Gulf of Alaska began to fall during the 1960s and 1970s, shortly after the whale fishery collapsed and after the cessation of human harvest, but in advance of the late 1970s regime shift.[j] Harbor seals declined first (37),[k] followed by fur seals and then sea lions. Killer whales may have preferred harbor seals and fur seals to sea lions for nutritional or behavioral reasons, such as the higher energy density of harbor seals and the ease of capturing and handling both species because of their smaller size and less aggressive nature.

We surmise that as the last of the pinnipeds became comparatively rare, some of the killer whales that preyed on them further expanded their diet to include the even smaller and calorically least profitable sea otters. Sea otter populations in the Aleutian Islands began to collapse in ≈1990, after the pinniped declines, and by the late 1990s their numbers had decreased by an order of magnitude in many areas, converging on a common low density throughout the archipelago (40) and causing sea urchins to overgraze the kelp forest ecosystem (12).[l] Our subsequent analyses of the likely reason for these changes are limited to the Aleutian archipelago, because this is where our

[j]Initial declines of fur seals on the Pribilof Islands (in the Bering Sea) and harbor seals on Tugidak Island (in the Kodiak archipelago, depicted in Fig. 2) prior to the 1970s were caused in substantial part by excessive human killing, of fur seals during an experimental harvest in 1956–1968 and of harbor seals by a commercial harvest in 1964–1972. After cessation of these harvests, numbers of both species continued to decline because of elevated mortality of juveniles and adults. It is particularly noteworthy that these "unexplained" declines began well in advance of the climate regime shift of 1977, which has been blamed for altering many facets of marine ecosystems of the North Pacific (3–5).

[k]Although these data are from a single location, Tugidak Island, they are representative of the timing and magnitude of harbor seal declines that occurred elsewhere. For instance, the harbor seal population at Otter Island (in the Pribilof Islands), which numbered ≈1,200 when first counted in 1974, declined 40% from 1974 to 1978 and an additional 40% from 1978 to 1995 (L. Jemison, personal communication). Similar harbor seal declines, although not quantified, have occurred throughout the Aleutian archipelago (J.A.E., unpublished observations).

[l]A corollary is that the increase in abundance of killer whales in the late 1980s on the continental shelf of the eastern Bering Sea, in the region of the Pribilof Islands and in Bristol Bay (41, 42), also resulted from the collapse of pinnipeds in the Aleutian Islands. The increase of killer whales on the shelf was accompanied by the resumption of the overall decline of fur seals at the Pribilofs after a brief interval of stability at St. Paul Island (Fig. 2) and by numerous observations of attacks on a variety of marine mammal species in Bristol Bay.

field studies were done, and it is the region from which we have the best information on key players.

Killer Whale Abundance. Killer whales were long thought to be too rare to account for the pinniped declines,[m] but current information indicates this is not the case. By using standard line transect techniques (43), killer whale density in waters up to 370 km south of the eastern and central Aleutian archipelago was conservatively estimated at 3.6 individuals per 1,000 km^2, based on 2,897 km of shipboard search effort during a 1994 survey (K.A.F., unpublished data). [This estimate is comparable to densities of 2.5 per 1,000 km^2 for the southeast Bering Sea (44) and 2.3–7.6 per 1,000 km^2 for Antarctic waters (45).] If the density were similar in the western Aleutian Islands, the estimate of 3.6 individuals per 1,000 km^2 would translate into an abundance of 3,888 killer whales (95% confidence interval, 1,707–8,857) in waters within 370 km (1,080,000 km^2) of the entire archipelago. This estimate presumably includes killer whales of all three ecotypes.

Demographic Influences of Killer Whale Predation. Although changes in fish stocks due to fishing or climate regime shifts may have contributed to the losses (46), as did directed killing by people (6), both the sea otter and sea lion declines could be accounted for by remarkably small changes in killer whale foraging behavior. We computed these changes by combining estimates of the abundance and nutritional requirements of killer whales, the nutritional value of sea lions and sea otters, and the number of additional deaths required to explain the observed sea lion and sea otter declines in the Aleutian archipelago. We were unable to conduct similar analyses for harbor seals, because the predecline population size there is unknown.

Population matrix models were used to estimate the number of additional deaths required to drive the sea otter and sea lion declines. These models were parameterized by using published life table data for Steller sea lions (47), age-specific fertility and mortality rates for sea otters (12), and predecline abundance estimates for both species (40, 47). We then fit the added mortality required to generate the observed speed and magnitude of population declines for each species. For sea otters, we assumed age independence and a constant number of animals lost per year (12). The resulting loss estimate was 9,982 deaths per year from 1991 through 1997. For Steller sea lions, we used maximum likelihood methods (48) to fit the demographic model with an added time-varying logit function for predation risk. The age-specific probability of elevated mortality is unknown for Steller sea lions, and thus a series of models was fitted, ranging from age constancy to 5-fold higher predation risk for pups and younger animals. These models predict from as many as 15,006 additional animals lost to predation in the Aleutian Islands in 1979 to as few as 170 in 2000.

Caloric values for sea otters were determined by bomb calorimetry of homogenized whole carcasses and measurements of adult body mass (12). Resulting estimates range from 41,630 to 61,540 kcal per individual. Caloric values for Steller sea lions, determined similarly for skeletal muscle and blubber, ranged from 1.5 to 6.7 $kcal \cdot g^{-1}$ wet weight. These latter data were combined with published estimates of body mass and composition for pups, adult females, and adult males to provide estimates of caloric value for individual sea lions (T.M.W., unpublished data).

[m]Dahlheim, M. E. (1994) *Abundance and Distribution of Killer Whales in Alaska* (Unpublished Report, National Oceanic and Atmospheric Agency, National Marine Mammal Laboratory, 7600 Sand Point Way N.E., Seattle, WA).

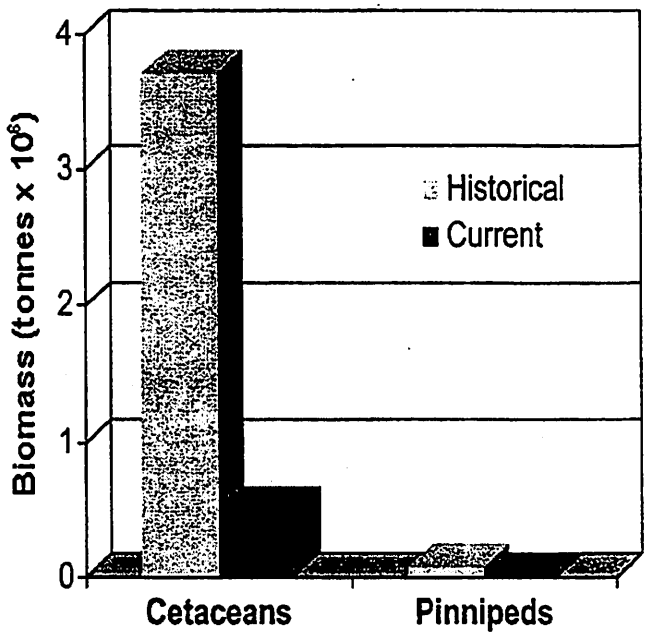

Fig. 3. Biomass estimates for great whales (blue) and pinnipeds (red) before and after recent declines in the Aleutian Islands and Bering Sea region. These estimates were derived from current and historical estimates of abundance and per capita biomass, in some cases adjusted for estimates of sex and size composition (from ref. 29). Historic and current abundance estimates are species-specific. "Historical" is defined as the period before large-scale commercial exploitation, ranging from the mid-1800s to the mid-1900s. "Current" is defined as the most recent available estimate of abundance, reflecting population levels during the mid-1990s to early 2000s.

The nutritional requirements of killer whales were estimated from field metabolic rates and assimilation efficiency. Field metabolic rate estimates ranged from 163,738 to 243,501 $kcal \cdot day^{-1}$, depending on sex and age [Barrett-Lennard *et al.* (49) estimated similar metabolic rates for free-ranging killer whales]. Assimilation efficiency was taken as 82% (50).

These data can be translated into potential killer whale dietary change in various ways. If we assume the change was spread evenly across all of the region's 3,888 killer whales, then a dietary shift of <1% in total caloric intake (0.99% for sea lions; 0.17% for sea otters) is sufficient to drive the respective population declines. In view of the killer whale's complex social structure and associated dietary variation, a larger dietary change by some smaller number of individuals is more likely. If we assume that ≈7% of the killer whale population are transient mammal eaters (P. Wade, personal communication), the resulting 272 killer whales is >10-fold larger than the minimum number needed to drive the Steller sea lion decline and >45-fold larger than the minimum number needed to drive the sea otter decline if they derived 100% of their total caloric intake from either species. These various estimates show that our conclusions are robust to anything but massive errors in the input parameters, something we believe is unlikely.

The inability of sea otters and pinnipeds to sustain increased mortality from redirected killer whale predation ultimately derives from their much smaller aggregate biomass compared with that of the great whales (Fig. 3). When all of these marine mammals were maximally abundant, the estimated biomass of great whales was ≈60-fold larger than the combined total for pinnipeds and sea otters. These gross inequalities suggest that the great whales were capable of sustaining vastly more killer

whales than were the pinnipeds and sea otters, despite the fact that in some cases only portions, e.g., tongues, of great whales are consumed. From these estimates and analyses, it is easy to see how industrial whaling could have caused killer whales to "fish down" (51) other components of the marine mammal food web.

Discussion

Our proposed explanation for the collapse of sea otters and pinnipeds in the northern North Pacific Ocean and southern Bering Sea, although speculative, is based on a logical interpretation of known patterns and feasibility analyses of the hypothesized causal process. Although killer whales likely drove the sea otter declines and are known to prey on harbor seals, northern fur seals, and sea lions, there is presently no direct evidence that killer whale predation drove the pinniped declines. In contrast with the sea otters, detailed field studies of killer whales and pinnipeds are lacking from the most critical time periods. Studies of the modern-day predator–prey system in the western Gulf of Alaska and Aleutian Islands are unlikely to resolve this matter, because pinnipeds and sea otters are now relatively rare and their populations comparatively stable, and numbers of mammal-eating killer whales in the region also may be much reduced. Thus, few losses from predation would be expected, and the demographic significance of those that might be seen would be difficult to interpret. However, it is worth mentioning that recent localized declines of harbor seals (www.sfgate.com/cgi-bin/article.cgi?file=/news/archive/2003/02/24/state1900EST7458.DTL) and Steller sea lions (52) elsewhere have been attributed to killer whale predation. A further complication is that some recovering whale populations, particularly gray, humpback, and bowhead whales, are increasingly providing alternate prey resources for killer whales in this region.

The most promising source of information on the cause of the pinniped declines is the retrospective analysis of materials from individual pinnipeds or killer whales that were alive during various stages of the megafaunal collapse. Recently published nitrogen isotope analyses of pinniped bones obtained during this period provide no indication of dietary change (53), a finding that appears to be inconsistent with nutritional limitation. Isotopic studies of killer whale bones and teeth could provide a more definitive test of our hypothesis by establishing whether these large predators altered their diets after the great whale reductions. It is worth noting that if the North Pacific killer whale population has remained numerically stable with a stationary age distribution over this period, ≈28–39% of the individuals alive in 1965 during the final binge of commercial whaling would still be alive in 2002. For the longer-lived females alone, 39–57% survival from 1965 is expected.[n]

There is growing evidence that large animals play important roles in ecosystem dynamics (55–59). Furthermore, retrospective analyses of numerous coastal marine systems demonstrate or suggest a pervasive influence from the historical removal of these large animals (60). Many ecosystems function in vastly different ways today than they did when large animals were common, and there is no reason to believe the open sea is an exception. If our hypothesis is correct, either wholly or in significant part, commercial whaling in the North Pacific Ocean set off one of the longest and most complex ecological chain reactions ever described, beginning in the open ocean >50 years ago and leading to altered interactions between sea urchins and kelp on shallow coastal reefs.

Whaling was a global endeavor (61), and thus ecosystem-level effects of commercial whaling undoubtedly occurred elsewhere in the world oceans. The depletion of baleen whales in the Southern Ocean is thought by some to have substantially altered krill abundance and therefore the dynamics of interactions between krill and krill consumers (62, 63). Moreover, the Southern Ocean is a region where the great whales were exploited in even larger numbers than they were in the North Pacific, pinnipeds and killer whales were abundant, and various southern elephant seal (*Mirounga leonina*) populations have declined (64–66). Barrat and Mougin (64) hypothesized that these declines were caused by whaling and increased killer whale predation, an identical explanation to the one we are proposing for the North Pacific. It is surprising to us that these proposals for community-level influences of whales and whaling have had so little effect on subsequent research. Both are supported by logic and a variety of indirect evidence, and neither has been reasonably discounted, so far as we know.

Although substantial uncertainty remains concerning the degree to which whales and whaling influenced the structure and dynamics of ocean ecosystems in top-down ways, these influences must have been sizeable. A greater appreciation of this fact is needed to properly understand the function of the oceans, now and in the past.

[n]Survival estimates were calculated from two-sex matrix models by using demographic rates from ref. 54.

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PUTTING BEST AVAILABLE SCIENCE TO USE IN THE NORTH PACIFIC

Presentation by
David Fluharty
DEFINING BEST AVAILABLE SCIENCE WORKSHOP
NAS/NRC/OSB
Washington, D.C., September 8-9, 2003

SCIENTIFIC UNCERTAINTY

"ONLY IDEOLOGY HOLDS DEFINITE TRUTHS. IN CONTRAST, SCIENCE AIMS TO SEPARATE THE ***PROBABLY TRUE*** FROM THE ***DEFINITELY FALSE***"

Pollack, H.N., 2003. *Uncertain Science...Uncertain World.* Cambridge University Press, Cambridge reviewed in EOS 84:30 [July 29]

QUESTION OF CONTEXT

- WHAT DIFFERENCE DOES IT MAKE TO HAVE DEFINED STANDARD FOR BAS IF NOT INTEGRATED INTO DECISION PROCESSES?
- WHO DETERMINES IF "BURDEN OF PROOF" IS MET?
- HOW DOES BAS HELP DEFINE WHEN FISHERY MANAGEMENT IS PRECAUTIONARY [ENOUGH]?
- WHAT IF CURRENT APPROACHES ARE NOT EFFECTIVE AT PRODUCING BAS?

EXAMPLES OF BAS FROM NORTH PACIFIC

- INSTITUTIONALIZATION OF BAS
- SAFE/ TAC SETTING PROCESS
- PACIFIC OCEAN PERCH DECISION
- STELLER SEA LION RPA DECISIONS
- PROGRAMMATIC SEIS GROUNDFISH
- RATIONALIZATION
- MODELS
- DATA QUALITY ACT

INSTITUTIONALIZATION OF BAS NORTH PACIFIC {HISTORY}

- Precursor – IPH, INPFC, PSC
- Post-1976 NPFMC managing mostly foreign groundfish fishery in FCZ
- Science dominated process / conservative
- Development of domestic groundfish fisheries managed using same process
- Key element – industry funded observer program for catch and bycatch

INSTITUTIONALIZATION OF BAS NORTH PACIFIC {PROCESS}

- STRONG SCIENTIFIC BASIS FOR PLAN TEAM DEVELOPMENT/ OPEN MEETINGS WITH ALLOWANCE FOR PUBLIC PARTICIPATION
- DOCUMENTS AVAILABLE/SCIENTISTS AVAILABLE PRIOR TO COUNCIL MEETINGS
- AT COUNCIL MEETINGS
  SSC PERFORMS PEER REVIEW
  AP PERFORMS INTEREST GROUP REVIEW
  COUNCIL RECEIVES SSC AND AP REPORTS AS WELL AS RECEIVES PUBLIC COMMENT

INSTITUTIONALIZATION OF BAS NORTH PACIFIC {OUTCOME}

- SOURCES OF SCIENTIFIC INFORMATION ARE IDENTIFIED FULLY
- ALTERNATIVE INTERPRETATIONS TESTED IN PUBLIC DISCUSSION AT PLAN TEAM/ SSC/ AP PRIOR TO COUNCIL REVIEW
- EDUCATED CONSENSUS IS GAINED
- DECISION-MAKING UNDER UNCERTAINTY BENEFITS
- INFORMATION GAPS BECOME RESEARCH PRIORITIES

SAFE/TAC SETTING PROCESS

- CUMULATIVE PROCESS WITH CONSIDERABLE "HISTORY" WITH NEW INFORMATION CLEARLY IDENTIFIED [SAFE DOCUMENT BSAI 700+ PP]
- PUBLIC REVIEW
- BAS ISSUES RESOLVED BY SSC PEER REVIEW – OR GUIDANCE GIVEN
- CURRENTLY REVISING PROCEDURE TO PERMIT INCORPORATION OF SUMMER SURVEY RESULTS AND STILL BE NEPA COMPLIANT [ISSUE OF TIMING]

PACIFIC OCEAN PERCH DECISION

1976 POP DEPLETED BY FOREIGN FLEETS

EFFORTS TO MAINTAIN TARGET FISHERY DOES NOT REBUILD

REBUILDING PLAN WITH THRESHOLD PUT IN PLACE EARLY 1990'S [BYCATCH ONLY]

SURVEYS SHOW THAT REBUILDING THRESHOLD MET APPROX. 1996

CONSIDERABLE DEBATE OVER MODEL/ SURVEY RESULTS/ STATUS "RESOLVED" BY SSC REVIEWING CONSERVATIVE NATURE OF MODEL, RESULTS, ALTERNATIVES

STELLER SEA LION RPA [MSFCMA/MMPA/ESA]

- CONSENSUS-BASED SCIENTIFIC PROCESS DISRUPTED IN BIOLOGICAL OPINION II WHICH FOUND JEOPARDY
- ESA TRUMPS/ MSFCMA
  - ONLY PEER REVIEWED PUBLICATIONS
  - LIMITED USE OF OTHER SCIENCE
  - DID NOT USE MOST RELEVANT TELEMETRY DATA
- COUNCIL SCIENTIFIC PROCESS SEEKS REVIEW
  - 'BLUE JEANS' PANEL/ INDEPENDENT EXPERTS
  - NRC
  - NEGOTIATIONS WITH NMFS, WDC [1]

BIOP III WIDER USE OF SCIENTIFIC INFORMATION AND TELEMETRY DATA WORKED UP

PROGRAMMATIC SEIS GROUNDFISH

WHAT IS A PROGRAMMATIC SEIS?

JUDGE ZILLY –UNCLEAR BUT LAWYERS AFRAID TO ASK FOR CLARIFICATION [IF ACTION FORCING/ PROGRAM OUTLINE]

CEQ – 100-200 PP. GENERAL DIRECTIONS FOR NEXT 5-10 YEARS

NOAA GC – GIVE EVERYTHING AND KITCHEN SINK

AFSC – AWARE OF ALL PERTINENT LITERATURE AND PROVIDE RATIONALE FOR DECISION IN LIGHT OF DATA

CURRENT DRAFT ENCYCLOPEDIC
WEIGHS 41 LBS. AND HAS APPROX. 7000 PAGES
CONSISTS OF 9 VOLUMES AND AN EXCECUTIVE SUMMARY
THREE-PLUS YEARS, $3,000,000 AND COUNTING.

PROGRAMMATIC SEIS GROUNDFISH

NO ARGUMENT – NEPA COMPLIANCE IS NECESSARY – BUT IS THIS BEST AVAILABLE SCIENCE?

VERY LITTLE NEW INFORMATION YET OCCUPIES MOST OF NMFS AND COUNCIL SCIENTIFIC STAFF ANALYTICAL TIME

PSEIS MODEL FOR HABITAT CONFLICTS WITH MODEL USED IN EFH

CLEARLY PROVIDES A REFERENCE DOCUMENT FOR DECISION BUT HOW WILL "SCIENTIFIC SNAPSHOT" CONSTRAIN MANAGEMENT UNDER CONDITIONS WITH NEW INFORMATION AVAILABLE

COMING SOON TO ALL COUNCIL REGIONS.....

RATIONALIZATION

- HALIBUT/SABLEFISH
  - RELATIVELY SIMPLE HARVESTER ONLY
  - SOCIO-ECONOMIC IMPACT PREDICTION FAIRLY SUCCESSFUL
- POLLOCK
  - CONGRESSIONALLY DESIGNED/ COUNCIL SIDEBOARDS – HARVESTER/ PROCESSORS
  - SOCIO-ECONOMIC IMPACT INCOMPLETE BUT RESULTS SEEN SURPRISINGLY POSITIVE

RATIONALIZATION

- CRAB
  - 4-YEAR COUNCIL PROCESS BRINGS COMPROMISE – HARVESTER/ PROCESSOR/ COMMUNITY IFQ
  - VERY DIFFICULT TO ANALYZE/ CONFLICTING SCIENTIFIC ADVICE
  - BILL INTRODUCED IN SENATE 9/03
- GULF OF ALASKA
  - MULTI-YEAR PROCESS / ALL SPECIES/ AREAS/ HARVESTERS/ PROCESSORS/ COMMUNITIES

MODELS

- VERY IMPORTANT IN FISHERIES MANAGEMENT. HOW SHOULD THEY BE TREATED?
- QUALITIVE/QUANTITATIVE MODELS
- STATEMENT OF ASSUMPTIONS/ PARAMETERIZATION
- WHO SELECTS/

DATA QUALITY ACT

- WHAT WILL BE THE EFFECT ON MSFCMA BAS REQUIREMENTS?
- INTERACTION WITH NEPA/ ESA/ MMPA
- WILL FISHERIES MEET THRESHOLD VALUES [$100,000,000]?
- HOW WILL CREATIVE LEGAL TALENT USE ACT (See Brian Urstadt, "One Act Farce: Deregulation by Disputation" Harper's Magazine, June 2003].

Conclusions from the North Pacific

- BAS is an essential part of the institution and is processes – not an external element. Integrate don't separate.
- Process of open and transparent search for BAS educates, fosters consensus and induces buy-in.
- Use of BAS simplifies TAC setting and other decision-making, especially with quantifiable biological information. Monitoring data are essential.
- Use of BAS in social science analyses is largely qualitative in part due to methods but mostly due to lack of data, e.g., cost and other proprietary information.

BACK TO UNCERTAINTY

".... EXAMPLES OF UNCERTAINTY IN SCIENCE ARE NOT ANOMALIES OR IMPERFECTIONS. RATHER, UNCERTAINTY IS A UBIQUITOUS STRENGTH INHERENT IN THE ENDEAVOR."

Pollack, H.N., 2003. *Uncertain Science...Uncertain World.* Cambridge University Press, Cambridge. Reviewed in EOS 84:30 [July 29]

Response to the NRC Ocean Studies Board regarding 'Best Scientific Information Available" - Submitted by Chris Oliver, Executive Director, North Pacific Fisheries Management Council (this response has not been reviewed by the Council)

How does the Council interpret the phrase 'best scientific information available' as used in National Standard 2?

We interpret it at face value, as it is not explicitly defined. Essentially, we infer that we are to use the best (most recent) information that exists for stock assessment purposes and/or other analytical purposes, such as catch, value, and economic multipliers associated with social and economic analyses.

Are constituent observations, opinions, or recommendations considered in addressing Standard 2?

Yes, they are considered, but opinions should not take the place of available scientific information. In some cases, where scientific information is not readily available, or not ironclad in its veracity, observations and opinion can play a greater role. In the case of setting annual catch quotas, the scientific stock assessment information (based on processes described below) always forms the basis for the Council's quota recommendations (TACs) to the Secretary.

When there are discrepencies in information from different sources (e.g Council staff, state fishery scientists, academics, industry reps) who determines which information to use in preparing the FMPs? What criteria are used to rank or reject information?

In these cases the Council is the final decision maker in terms of which information to use. The Council relies heavily on its Scientific and Statistical Committee (SSC) to provide recommendations regarding the reliance on various scientific information. In some cases (economic or social analyses for example) the information may not be as clear, concise, or definitive, and is more open to varying interpretations. In these cases, the Council staff uses its best judgement, guided by input and review from the SSC. Again, the Council is the ultimate arbitrator in such circumstances. It should be noted that there have rarely been any significant disagreement or discrepencies with regard to the biological science employed in the annual SAFE/TAC setting process. There are no specific criteria used to rank or reject information.

Who determines what information is contained in the SAFE reports, what criteria are used to select the information included in these reports, and what quality control procedures are in place?

SAFE reports in the North Pacific are compiled annually by the Council's Groundfish Plan Teams (consisting of Council staff, state and federal agency staff, and academic experts). These SAFE reports are voluminous and are compiled from detailed annual stock assessments for each managed species prepared by stock assessment scientists from NOAA's Alaska Fisheries Science Center (for certain rockfish species, State of Alaska scientists prepare the annual stock assessments). Specific stock assessment models and projections are determined by the individual stock assessment scientists, based on review by the Groundfish Plan Teams. Additional information on economic status of the fisheries, bycatch status, and ecosystem considerations are included by Council and

NMFS staff, with the concurrence of the Council.

Following review of the annual stock assessments by the Groundfish Plan Teams, the SAFE reports are compiled and forwarded to the SSC for their detailed review. The SSC provides a detailed report to the Council, including their recommendations for Acceptable Biological Catch levels (ABCs). If the Plan Teams and SSC disagree on ABC recommendations, the Council determines the ABC, usually based on SSC recommendations (noting that our SSC includes members with distinguished credentials in stock assessment and fishery population dynamics - only state and federal scientists and academic experts are members of the SSC). The Council then determines the TAC level for the upcoming fishing year (less than or equal to ABC).

Recently the North Pacific Council commissioned an independent scientific review of the basic exploitation strategies and stock assessment models employed for North Pacific species. The recommendations from that report, compiled by internationally recognized experts, are now being considered in the overall SAFE process in the North Pacific.

Please describe the process by which the Council (including staff and committees) prepare FMPs and supporting documents (amendments, EIS, etc)? How does the Council ensure that NS 2 is satisfied when preparing FMPs and supporting documents and how does it determine what information to consider with respect to:
*stock assessments
*EFH
*non-target species impacts
*socioeconomic assessments
*other?

See previous discussion with respect to stock assessments. Typical FMP amendments (and/or EISs) are developed through a combination of staff, committee, and Council discussion, with public input from affected industry, etc. The actual analyses are developed by staff from the Council and NMFS, as well as contracted assistance (particularly for social and economic analysis). Many of the amendments in this region are primarily allocational in nature, and therefore are dependent upon a high level of socioeconomic analyses. The information used in these analyses is largely dependent upon agency collected data (landings, location, value) for all fishery participants, as well as information from our comprehensive observer program. Operational cost data is used to the extent it is available (often this information is not available making definitive cost/benefit analyses very difficult).

The Council does not have an explicit check list or criteria to gauge whether NS 2 is satisfied with respect to every management action or amendment. However, as a general rule we always strive to consider all relevant information that we know exists, and then use the information that appears to be the most relevant and up-to-date ('best'), and utilize our SSC to review the information and analyses. The SSC may recommend different analytical approaches in the use of that information, or at times identify additional information that was previously unknown to the analysts. Public testimony may also identify alternative sources or uses of information. This is the basic process regardless of the specific issue being addressed.

What is the origin of the data used in these scientific reports (who collects the primary data and how is it collected)?

Primary data relative to stock assessment is collected in annual stock surveys conducted by NMFS, augmented to a considerable degree by data collected from on-board fisheries observers (about 36,000 observer days at sea annually in these fisheries). Economic data is collected indirectly through a variety of required state and federal reporting mechanisms for landings and processing, coupled with price and market information developed by Council, agency, and university personnel. Community data, demographic information, and related social impact assessment data are collected primarily through outside contract assistance via experts in this field. Additional data are obtained through state agencies (subsistence for example) and other federal agencies (Labor for example).

Have any data been excluded from consideration in the aforementioned scientific reports? If so, what is the basis for such exclusion?

No relevant data is excluded, recognizing that not every possible morsel of information can practically be included. Anecdotal information is often excluded from explicit consideration in the scientific analyses due to is unsubstantiated nature. Certain information, landings and processing information for example, can only be disclosed at an aggregated level due to state and federal regulations regarding confidentiality.

Have some data been ranked higher than others for scientific assessments? If so, please explain basis for such ranking, or why data have been treated equally.

In preparing analyses, all data known to be relevant and of good quality are included equally. In stock assessment there is one primary source of data so this question is not applicable. Regarding economic analyses, there may be differences of opinion with regard to various data used in the analysis. In this instance staff make the best judgement possible as to validity of the data, recognizing that 'ranking' and interpretation of such data by the reviewers and decision makers may occur implicitly.

Are there steps in the process where the scientific data and findings are submitted for peer review? If so, is there a process for responding to critiques?

Stock assessment process and review is described above. Other amendments and analyses are reviewed internally by a number of state and federal personnel, prior to review by the Council's SSC. No additional, formal peer review process is employed (other than that described above relative to stock exploitation strategies). In the North Pacific, the fishing industry is extremely sophisticated and various industry associations employ their own scientists, economists, and attorneys which routinely review analyses and provide critiques and recommendations. Such critiques are assessed by the SSC which in turn provides recommendations to the staff analysts and the Council as to the validity and merit of such critiques. The Council also hears these critiques and responds according to their apparent merit. Once an FMP or amendment is approved by the Council, there is an additional process under Secretarial review where comments are solicited and responded to in writing prior to adoption as a final rulemaking.

AGENDA B-1(e)
OCTOBER 2003

STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

DEPARTMENT OF FISH AND GAME

OFFICE OF THE COMMISSIONER

P.O. BOX 25526
JUNEAU, AK 99802-5526
PHONE: (907) 465-4100
FAX: (907) 465-2332

September 26, 2003

RECEIVED
SEP 26 2003
N.P.F.M.C

Chris Oliver, Executive Director
North Pacific Fishery Management Council
605 W. Fourth St., Suite 306
Anchorage, AK 99501

Dear Mr. Oliver:

The North Pacific Fishery Management Council (council) requested the Alaska Board of Fisheries (board) review options currently associated with rationalizing the Gulf of Alaska's groundfish fisheries. This should include recommendations regarding state waters fisheries under the options identified through the council's June 2003 motion. This letter requests funding for the board in order to accomplish this task.

As you are aware, the Joint Protocol Committee of the board and council discussed groundfish rationalization at its July 2003 meeting. The board was informed of the council's timeline in finalizing its action to rationalize the Gulf. The board has recently made an announcement of its intention to set up a stakeholder panel, and it intends to conduct the panel meetings in a schedule that meets the council's timeline.

On behalf of the board chairman, Ed Dersham, I am requesting the council provide $25,000 to the board for this effort. The funds will enable the board to undertake the additional workload that will be associated with this endeavor. In addition to the fact that the work associated with redesigning the state waters groundfish fisheries in the Gulf will have to be added on to an already full board meeting cycle, the board's program has recently undergone significant budget reductions. It will be important for the success of this project that the board receives a funding source to carry out the work the council has requested.

I appreciate your consideration of providing funds to the Board of Fisheries. A project work plan is enclosed.

Sincerely,

Kevin C. Duffy

Kevin C. Duffy
Commissioner

Enclosure

cc: Ed Dersham, Chairman of Board of Fisheries

ALASKA BOARD OF FISHERIES SUPPORT FOR GULF OF ALASKA GROUNDFISH RATIONALIZATION IN STATE WATERS FEDERAL FY 2004 PROGRAM JUSTIFICATION

PROGRAM COORDINATOR: Diana Cote, Executive Director
Boards Support Section
Alaska Department of Fish and Game
P.O. Box 25526
Juneau, AK 99802

PRINCIPAL STAFF: Diana Cote, Art Hughes, Lori VanSteenwyk, all ADF&G, P.O. Box 25526, Juneau, AK 99802

Sherry Wright, ADF&G, 333 Raspberry Rd., Anchorage, AK 99518

Joe Chythlook, ADF&G, P.O. Box 1030, Dillingham, AK 99576

NOAA INVOLVEMENT: This program does not have any particular involvement with NOAA.

INTRODUCTION

The National Marine Fisheries Service and the Alaska Department of Fish and Game share management responsibility for the groundfish fisheries off Alaska, with the North Pacific Fishery Management Council (council) and the Alaska Board of Fisheries (board) responsible for allocative management recommendations in federal and state waters, respectively. The board and council coordinate closely on interjurisdictional issues because the fisheries and marine resources under each agency's respective jurisdiction are closely related.

In March 1997, the board and the council adopted a protocol to achieve coordinated, compatible, and sustainable management of fisheries within each others' jurisdiction of the Gulf of Alaska, Bering Sea, and Aleutian Islands. The protocol calls for information exchange, joint meetings, and active consultation to meet the goal of providing long-term compatible management systems for the fisheries resources in state and federal waters.

Currently, the council is working towards a plan to "rationalize" the groundfish fisheries in the Gulf of Alaska. Through the board and council's Joint Protocol Committee, the council has requested the board provide input regarding state waters fisheries under the options identified through the council's June 2003 motion, including observer coverage. In order to develop alternatives for state waters groundfish fisheries under a rationalized approach, an increase in funding for the board is needed as current agency budgets are insufficient to fully conduct these efforts.

The program described here, totaling $25,000, will allow the board to develop and conduct a process that includes public involvement to form a regulatory structure for state waters groundfish fisheries in

the Gulf of Alaska. Funds received by ADF&G for federal FY2004 will be spent from October 1, 2003 through September 30, 2004.

Funding for this program should not be confused with ADF&G funding increment requests or with other US-government-funded programs.

PROGRAM BUDGET SUMMARY

The overall local area management plan program for federal FY2004 consists of one project totaling $25,000, including administrative costs. The project costs are estimated based on our best determination of how work will progress through the board's regulatory process. Costs may be greater or less, depending on the number of members named to the GOA Groundfish Rationalization Steering Committee, where each member will travel from in order to attend the meetings, whether the work within each meeting progresses as predicted, etc. Some of the travel costs included in the project are for nonstate employees who may or may not participate as expected. In addition, the efforts include discussions of many controversial issues, therefore it is possible that the steering committee may need to meet more often and it is possible that the steering committee may disintegrate in disagreement over the issues and not meet as anticipated. These unknowns will also affect the timing of expenditure of funds among quarters of the fiscal year; the anticipated expenditures noted in this grant application are the best estimates of completion of the work.

The following table presents a summary of the program budget by category. Included in the figures are the required board member compensation, established by state statute AS 16.05.29 Compensation of Board Members. The rates are established as $185.63 for a regulatory meeting, $92.82 for a nonregulatory meeting. No benefits are included when compensation is paid to board members. The board members who are directly involved with the GOA Groundfish Rationalization project are:

Ed Dersham, Anchor Point
Mel Morris, Kodiak
Art Nelson, Anchorage

The remaining board members who will be involved in board and full joint council/board meetings are:

Rupe Andrews, Juneau
Fred Bouse, Fairbanks
John Jensen, Petersburg
Russell Nelson, Dillingham

PROJECT NARRATIVE AND BUDGET

GOA Groundfish Rationalization Steering Committee

At its October 2003 work session, the Board of Fisheries will name a public steering committee for GOA Groundfish Rationalization. This steering committee, under general guidance by the board and with technical support from ADF&G and council staff as appropriate, will identify issues related to state waters groundfish fisheries using the council's June 2003 motion that identifies alternatives to be explored. Problem statements will be generated. The steering committee will also begin to identify preferred solutions, along with consideration of impacts that such solutions may have on other fisheries.

It is anticipated that the steering committee will meet three times in the Anchorage area, once in Kodiak, and once in the Alaska Peninsula area during the October 2003 – February 2004 time period for a total of seven meeting days. An update on progress will be given at the joint council/board protocol committee meeting in December 2003 meeting, at the board's January 2003 meeting, and at the full joint council/board meeting in February 2004. The board will develop its recommendations during the February 2004 meeting, and set future meeting schedules as needed. Travel will be required for steering committee members, board members, and staff to each local area meeting and for steering committee members to the joint council/board and the board's meetings mentioned above. Public meeting notices and room rental is also included in the budget below.

SALARIES**	
Board member honorarium	$ 2,690
TRAVEL**	
Board members ADF&G Staff Steering Committee Members	$17,780
CONTRACTUAL**	$ 4,900
Meeting space rental Public notice publication costs	
STEERING COMMITTEE TOTAL	$25,000

**Note: Detailed breakdown of salaries, travel, and contractual costs will be provided

to March 24, 2003. The results of this investigation indicated that the Licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the Licensee by letter dated July 2, 2003. The Notice states the nature of the violation, the provision of the NRC's requirements that the Licensee had violated, and the amount of the civil penalty proposed for the violation.

The Licensee responded to the Notice in a letter dated July 22, 2003. In its response, the Licensee contended the violation may have been based on false information; therefore, the violation may not have occurred. The Licensee also requested full mitigation of the proposed civil penalty.

After consideration of the Licensee's response and the statements of fact, explanation, and argument for mitigation contained therein, the NRC staff has determined that the violation occurred as stated and that the penalty proposed for the violation designated in the Notice should be imposed.

In view of the foregoing and pursuant to section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205, *it is hereby ordered that:*

The Licensee pay a civil penalty in the amount of $5,500 within 30 days of the date of this Order, in accordance with NUREG/BR–0254. In addition, at the time of making the payment, the licensee shall submit a statement indicating when and by what method payment was made, to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852–2738.

The Licensee may request a hearing within 30 days of the date of this Order. Where good cause is shown, consideration will be given to extending the time to request a hearing. A request for extension of time must be made in writing to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and include a statement of good cause for the extension. A request for a hearing should be clearly marked as a "Request for an Enforcement Hearing" and shall be submitted to the Secretary, U.S. Nuclear Regulatory Commission, ATTN: Rulemakings and Adjudications Staff, Washington, DC 20555. Copies also shall be sent to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555, to the Assistant General Counsel for Materials Litigation and Enforcement at the same address, and to the Regional Administrator, NRC Region III, 801 Warrenville Road, Lisle, IL 60532–4351. Because of continuing disruptions in delivery of mail to United States Government offices, it is requested that requests for hearing be transmitted to the Secretary of the Commission either by means of facsimile transmission to 301–415–1101 or by e-mail to *hearingdocket@nrc.gov* and also to the Office of the General Counsel either by means of facsimile transmission to 301–415–3725 or by e-mail to *OGCMailCenter@nrc.gov*.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the Licensee fails to request a hearing within 30 days of the date of this Order (or if written approval of an extension of time in which to request a hearing has not been granted), the provisions of this Order shall be effective without further proceedings. If payment has not been made by that time, the matter may be referred to the Attorney General for collection.

In the event the Licensee requests a hearing as provided above, the issues to be considered at such hearing shall be:

(a) Whether the Licensee was in violation of the Commission's requirements as set forth in the Notice referenced in Section II above, and

(b) Whether, on the basis of such violation, this Order should be sustained.

Dated this 5th day of September, 2003.

For the Nuclear Regulatory Commission.

James G. Luehman,

Deputy Director, Office of Enforcement.

[FR Doc. 03–23899 Filed 9–12–03; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

Advisory Committee on Reactor Safeguards, Meeting of the Subcommittee on Reactor Fuels; Notice of Meeting

The ACRS Subcommittee on Reactor Fuels will hold a meeting on September 29–30, 2003, Room T–2B3, 11545 Rockville Pike, Rockville, Maryland.

Portions of the meeting on September 30, 2003 may be closed to public attendance to discuss Electric Power Research Institute (EPRI) proprietary information per 5 U.S.C. 552b(c)(4).

The agenda for the subject meeting shall be as follows:

Monday, September 29, 2003—8:30 a.m. until the conclusion of business

Tuesday, September 30, 2003—8:30 a.m. until the conclusion of business

The purpose of this meeting is to review progress by the Office of Nuclear Regulatory Research in the area of high burnup fuels and other fuel-related research, to understand industry activities associated with the "Robust Fuel Program," and to hear the experience of industry related to crud deposits on reactor fuels. The Subcommittee will hear presentations by and hold discussions with representatives of the NRC staff, EPRI, and other interested persons regarding these matters. The Subcommittee will gather information, analyze relevant issues and facts, and formulate proposed positions and actions, as appropriate, for deliberation by the full Committee.

Members of the public desiring to provide oral statements and/or written comments should notify the Designated Federal Official, Mr. Ralph Caruso (telephone 301–415–8065) five days prior to the meeting, if possible, so that appropriate arrangements can be made. Electronic recordings will be permitted only during those portions of the meeting that are open to the public.

Further information regarding this meeting can be obtained by contacting the Designated Federal Official between 8 a.m. and 5:30 p.m. (ET). Persons planning to attend this meeting are urged to contact the above named individual at least two working days prior to the meeting to be advised of any potential changes to the agenda.

Dated: September 9, 2003.

Sher Bahadur,

Associate Director for Technical Support, ACRS/ACNW.

[FR Doc. 03–23401 Filed 9–12–03; 8:45 am]

BILLING CODE 7590–01–P

OFFICE OF MANAGEMENT AND BUDGET

Proposed Bulletin on Peer Review and Information Quality

AGENCY: Office of Management and Budget, Executive Office of the President.

ACTION: Notice and request for comments.

SUMMARY: OMB requests comments on a proposed bulletin under Executive Order No. 12866 and supplemental information quality guidelines. As part of an ongoing effort to improve the quality, objectivity, utility, and integrity of information disseminated by the Federal Government to the public, the Office of Management and Budget (OMB), in coordination with the Office of Science and Technology Policy

(OSTP), proposes to issue new guidance to realize the benefits of meaningful peer review of the most important science disseminated by the Federal Government regarding regulatory topics. The proposed bulletin would be issued under the authority of Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658); 44 U.S.C. 3504(d)(1), 3506(a)(1)(B); Executive Order No. 12866, as amended. Part I of the Supplementary Information below provides background and the request for comments. Part II provides the text of the proposed bulletin.

DATES: Interested parties should submit comments to the Office of Information and Regulatory Affairs (OIRA), Office of Management and Budget, at the address shown below on or before December 15, 2003.

ADDRESSES: Due to potential delays in OMB's receipt and processing of mail, respondents are strongly encouraged to submit comments electronically to ensure timely receipt. We cannot guarantee that comments mailed will be received before the comment closing date. Electronic comments may be submitted to: *OMB_peer_review@omb.eop.gov*. Please put the full body of your comments in the text of the electronic message and as an attachment. Please include your name, title, organization, postal address, telephone number, and e-mail address in the text of the message. Comments may also be submitted via facsimile to (202) 395–7245. Comments may be mailed to Dr. Margo Schwab, Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., New Executive Office Building, Room 10201, Washington, DC 20503.

FOR FURTHER INFORMATION CONTACT: Dr. Margo Schwab, Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., New Executive Office Building, Room 10201, Washington, DC 20503 (tel. (202) 395–3093).

John D. Graham,

Administrator, Office of Information and Regulatory Affairs.

SUPPLEMENTARY INFORMATION:

Part I—Background and Request for Comment

A "peer review," as used in this document for scientific and technical information relevant to regulatory policies, is a scientifically rigorous review and critique of a study's methods, results, and findings by others in the field with requisite training and expertise. Independent, objective peer review has long been regarded as a critical element in ensuring the reliability of scientific analyses. For decades, the American academic and scientific communities have withheld acknowledgement of scientific studies that have not been subject to rigorous independent peer review. Peer review "has been an essential part of the American science scene and one of the reasons why American science has done so well." Columbia University Provost Jonathon R. Cole (quoted in Abate, Tom, "What's the Verdict on Peer Review?" 21st Century, volume 1 (No. 1), Spring 1995, Columbia University); *see also* GAO Report, Peer Review Practices at Federal Science Agencies Vary, at 1 (March 1999) ("To help ensure the quality and integrity of the research, U.S. science has traditionally relied on independent reviews by peers.").

Independent peer review is especially important for information that is relevant to regulatory policies. Agencies often develop or fund the science that underlies their regulations, and then oversee the peer review of those studies. Unless the peer review is conducted with genuine independence and objectivity, this can create at least the appearance of a conflict-of-interest. For example, it might be thought that scientists employed or funded by an agency could feel pressured to support what they perceive to be the agency's regulatory position, first in developing the science, and then in peer reviewing it. Scientists with a financial interest in the subject matter of a study (*e.g.*, ties to a regulated business) face a similar issue. Given that genuinely independent and objective peer review can provide a vital second opinion on the science that underlies federal regulation, the peer review of such information should be carried out under proper and clearly-articulated procedures.

Scientists and government officials have recognized the importance of peer review in regulatory processes:

- Joint Presidential/Congressional Commission on Risk Assessment and Risk Management: "Peer review of economic and social science information should have as high a priority as peer review of health, ecological, and engineering information." Risk Assessment and Risk Management in Regulatory Decision-Making, vol. 2, at 103 (1997).
- The National Academies' National Research Council: "[B]enefit-cost analysis should be subject to systematic, consistent, formal peer review." Valuing Health Risks, Costs, and Benefits for Environmental Decision Making, at 207 (1990).
- Congress' General Accounting Office: "Peer review is critical for improving the quality of scientific and technical products * * *" GAO Testimony Before the House Subcommittee on Energy and Environment, Committee on Science, at 8 (Mar. 11, 1997).
- Sally Katzen, Former Administrator of OIRA: Scientific inferences "should pass muster under peer review by those in the same discipline, who should have an opportunity for such review to ensure that the underlying work was done competently and that any assumptions made are reasonable." Testimony Before the Environment, Energy, and Natural Resources Subcommittee of the House Committee on Government Operations (Feb. 1, 1994).

In addition, many bipartisan legislative proposals have supported independent, external peer review. See, *e.g.*, S. 343, the "Comprehensive Regulatory Reform Act of 1995;" S. 1001, the "Regulatory Procedures Reform Act of 1995;" S. 291, the "Regulatory Reform Act of 1995;" H.R. 1022, the "Risk Assessment and Cost-Benefit Act of 1995." In 1999, for instance, a bipartisan coalition (including Senators Frist and Daschle, among many others) proposed to require agencies to conduct genuinely independent and transparent peer reviews of their most important risk assessments and cost-benefit analyses. See S. 746, the "Regulatory Improvement Act of 1999."[1]

Existing agency peer review mechanisms have not always been sufficient to ensure the reliability of regulatory information disseminated or relied upon by federal agencies. While most agencies have policies that require or encourage peer review, they do not always conduct peer review according to their own policies—even for major rulemakings. Indeed, an agency Inspector General recently found that although one agency had issued extensive agency peer review policies and mandates, "[t]he critical science supporting the [agency's] rules was often not independently peer reviewed. Consequently, the quality of some science remains unknown." EPA OIG, Science to Support Rulemaking, at ii (Nov. 15, 2002) (emphasis supplied).

Even when agencies do conduct timely peer reviews, such reviews are sometimes undertaken by people who

[1] This legislative proposal was sponsored by a bipartisan coalition of 21 Senators, including Senators Levin, Thompson, Daschle, Frist, Moynihan, Voinovich, Stevens, Rockefeller, Abraham, Breaux, Roth, Robb, Cochran, Lincoln, and Enzi.

are not independent of the agencies, or are not perceived to be independent. Simply put, the agency proposing or supporting a regulation or study may not always be the best entity to commission or supervise its own peer review. Nonetheless, some agencies sometimes use their own employees to do peer reviews—a practice forbidden by other agencies' peer review manuals. See, *e.g.*, Agency for Toxic Substances & Disease Registry Peer Review Policy (Mar. 1, 1996) (peer review is "by outside (not ATSDR) expert scientists"); DOJ, Office of Juvenile Justice & Deliquency Prevention, Peer Review Guideline at 1 ("Peer review is * * * by experts from outside the Department"). As the National Academies' National Research Council has explained:

> External experts often can be more open, frank, and challenging to the status quo than internal reviewers, who may feel constrained by organizational concerns. Evaluation by external reviewers thus can enhance the credibility of the peer review process by avoiding both the reality and the appearance of conflict of interest.

Peer Review in Environmental Technology Development Programs: The Department of Energy's Office of Science and Technology 3 (1998) ("NRC Report").

The American Geophysical Union has likewise recognized that "real or perceived conflicts of interest" include the review of papers "from those in the same institution." AGU, Guidelines to Publication of Geophysical Research (Oct. 2000). Congress did the same in the Superfund legislation by providing that reviewers should not have "institutional ties with any person involved in the conduct of the study or research under review." 42 U.S.C. 9604(i)(13).

When an agency does initiate a program to select outside peer reviewers for regulatory science, it sometimes selects the same reviewers for all or nearly all of its peer reviews on a particular topic. While this may be appropriate in limited circumstances, more often it could lead an observer to conclude that the agency continually selected the peer reviewers because of its comfort with them. This hardly satisfies the purposes and principles underlying independent peer review. Thus, the National Academies' National Research Council has stressed that even "standing panels should have rotating membership terms to ensure that fresh perspectives are regularly replenished." NRC, Scientific Research in Education 138.

It is also important to understand the relationship of the peer reviewers with the agency, including their funding history. A peer reviewer who is financially dependent on the agency, or at least hopes to profit financially from other dealings with the agency, may not always be completely independent, or appear truly independent. One agency's Inspector General has encouraged the agency to do a better job of "consistently inquir[ing] whether peer review candidates have any financial relationship with [the agency]." EPA OIG Report No. 1999–P–217, at 10 (1999). Medical journals have similarly recognized the possibility that the receipt of significant funding from an interested entity can lead to bias, or the perception of bias, on the part of a reviewer. See "Financial Associations of Authors," New England Journal of Medicine, vol. 346, 1901–02 (2002); Philip Campbell, "Declaration of Financial Interests," Nature, vol. 412, 751 (2001). But while some federal agencies are becoming more sensitive to peer reviewers' financial ties to private interests, most have not been as focused on reviewers' ties to the agency itself. See, *e.g.*, Food & Drug Administration Guidance on Conflict of Interest for Advisory Committee Members, Consultants & Experts (Feb. 2000); National Institutes of Health Center for Scientific Review, Review Procedures for Scientific Review Group Meetings (Oct. 24, 2002).

In addition to selecting independent and qualified peer reviewers for regulatory science, it is also essential to grant the peer reviewers access to sufficient information and to provide them with an appropriately broad mandate. In the past, some agencies have sought peer review of only narrow questions regarding a particular study or issue. While the scope of peer reviewers' responsibilities will necessarily vary by context, peer reviewers must generally be able to render a meaningful review of the work as a whole. As one agency's peer review handbook explains, a good charge to the peer reviewers is ordinarily one that both "focuses the review by presenting specific questions and concerns" the agency is aware of, and also "invites general comments on the entire work product" so as to ensure that the peer review is not hemmed in by inappropriately narrow questions. EPA Science Policy Council, Peer Review Handbook, § 3.2.1 (2d ed. 2000).

Even when an agency solicits a comprehensive and independent peer review of regulatory science, the results are not always available for public scrutiny or comment. While a non-transparent peer review may be better than no peer review at all, public scrutiny of at least a summary of the peer reviewers' analyses and conclusions helps to ensure that the peer review process is meaningful and that the agency has fairly considered the peer reviewers' conclusions. Simply put, openness enhances the credibility of the peer review of regulatory science.

For these reasons, the Fish and Wildlife Service and the National Oceanic and Atmospheric Administration have required that peer reviewers' reports and opinions be included in the administrative record for the regulatory action at issue. See Endangered & Threatened Wildlife and Plants: Notice of Interagency Cooperative Policy for Peer Review in Endangered Species Act Activities, 59 FR 34,270 (July 1, 1994). The Agency for Toxic Substances and Disease Registry further requires that final research reports "consider all peer review comments," and that the "reasons for not adopting any peer reviewer's comment should be documented." Agency for Toxic Substances & Disease Registry Peer Review Policy at 5.

While the peer review policies described above promote independent and transparent peer review, experience has shown that they are not always followed by all of the federal agencies, and that actual practice has not always lived up to the ideals underlying the various agencies' manuals. In the National Science and Technology Policy, Organization, and Priorities Act of 1976 (Pub. L. 94–282), Congress called on OSTP to serve as a source of scientific and technological analysis and judgment for the President with respect to major policies, plans, and programs of the Federal Government. Pursuant to the 1976 Act, OSTP has evaluated the scale, quality, and effectiveness of the federal effort in science and technology, and has led interagency efforts to develop and to implement sound science and technology policies.

The President and the Congress have also granted OMB the authority and responsibility to address agency peer review practices. Executive Order 12866, issued in 1993 by President Clinton, specifies in section 1(b)(7) that "[e]ach agency shall base its decisions on the best reasonably obtainable scientific, technical, economic, or other information concerning the need for, and consequences of, the intended regulation." The Executive Order further requires OMB to provide guidance to the agencies regarding regulatory planning. *See id.* section 2(b).

Similarly, the Paperwork Reduction Act requires the Director of OMB to "develop and oversee the implementation of policies, principles, standards, and guidelines to * * *

apply to Federal agency dissemination of public information," and specifies that agencies are "responsible for * * * complying with the * * * policies established by the Director." 44 U.S.C. 3504(d)(1), 3506(a)(1)(B). In the Information Quality Act, Congress further specified that OMB's guidelines should "provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal agencies." Pub. L. 106–554, section 515(a).

Proposed Guidance

OMB's current information quality guidance encourages but does not require peer reviews, and identifies general criteria that agencies should consider when they conduct such reviews. See Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, 67 FR 8,452, 8,454–55, 8,459–60 (Feb. 22, 2002). To best serve the President's policy of improving our federal regulatory system and the quality and integrity of information disseminated by the federal agencies, OMB, in coordination with OSTP, now proposes to ensure that agencies conduct peer reviews of the most important scientific and technical information relevant to regulatory policies that they disseminate to the public, and that the peer reviews are reliable, independent, and transparent. This notice seeks comment on the following proposed guidance, which would take the form of an OMB Bulletin, would supplement (but not replace) OMB's information quality guidelines pursuant to the Information Quality Act, Pub. L. 106–554, section 515(b), and would also serve as guidance pursuant to the Paperwork Reduction Act, 44 U.S.C. 3504(d), and Executive Order 12866. OIRA will consult with OSTP in implementing this Bulletin as it relates to the peer review process.

Many agencies already have extensive peer review requirements. This guidance would supplement those requirements for the peer review of "*significant regulatory information,*" which is scientific or technical information that (i) qualifies as "influential" under OMB's information quality guidelines and (ii) is relevant to regulatory policies. This category does not include most routine statistical and financial information, such as that distributed by the Census Bureau, the Bureau of Labor Statistics and the Federal Reserve. Nor does it include science that is not directed toward regulatory issues, such as most of the scientific research conducted by the National Institutes of Health and the National Science Foundation. It is also limited to the peer review of *studies* to be disseminated, as opposed to applications for grants. In order to avoid duplication of effort, we have also exempted information that has already been adequately peer-reviewed from the peer review requirements of this Bulletin. Finally, OMB has excluded some categories of information, such as national security information, and some types of proceedings, such as individual adjudications and permit applications, from the scope of this Bulletin. The Bulletin also recognizes that waivers of these requirements may be required in some circumstances, such as when court-imposed deadlines or other exigencies make full compliance with this Bulletin impractical.

This Bulletin requires peer review of the category of "significant regulatory information" described above. It also articulates specific requirements for the peer review of "significant regulatory information" that the agency intends to disseminate in support of a major regulatory action, that could have a clear and substantial impact on important public policies or important private sector decisions with a possible impact of more than $100 million in any year, or that the Administrator of OIRA determines to be of significant interagency interest or relevant to an Administration policy priority. Such an impact can occur whether or not a federal rulemaking is envisioned or considered likely to occur, in part because information might influence local, state, regional, or international decisions. For this category of especially important information, whose reliability is paramount, agencies must take care to select external peer reviewers who possess the requisite experience and independence from the agency. The agencies must also provide the peer reviewers with sufficient information and an appropriately broad charge. The agency must then publicly respond to the peer reviewers' written report, and make other appropriate disclosures.

In addition to setting forth basic peer review procedures, this guidance also elaborates on the reporting requirements of Executive Order 12866 and the Information Quality Act. Pursuant to these authorities, agencies already provide OMB with information regarding upcoming regulatory initiatives and information quality issues. In doing so, each agency should make sure to identify: studies that will be subject to the peer review requirements of this Bulletin; the agency's plan for conducting the peer review; and correction requests filed by members of the public regarding the quality of information disseminated by the agency. These reporting requirements will permit the public, OMB, and OSTP to monitor agency compliance throughout the peer review process.

Finally, this Bulletin provides that each agency that receives a non-frivolous administrative correction request challenging the agency's compliance with the Information Quality Act must promptly post the request on its Internet website or forward a copy to OIRA and, if requested, consult with OIRA regarding the request. This consulting requirement will assist OMB in discharging its responsibility under the Information Quality Act to monitor the quality of information disseminated to the public. Together with the peer review and reporting requirements discussed above, it should also give the public reasonable assurance that the most important regulatory science disseminated by the federal government comes with indicia of reliability.

Additional Requests for Comment

OMB seeks comments from all interested parties on all aspects of this proposed Bulletin and guidelines. In particular, OMB seeks comment on the scope of this Bulletin. As explained above, this proposal covers significant regulatory information, with some exceptions. It may be that the overall scope of this Bulletin should be reduced or enlarged, or that fewer or more exceptions should be made.

OMB also seeks comment on whether some provisions of this proposal should be strengthened, modified, or removed. While the bipartisan legislative proposal discussed above required all peer reviewers to be independent of the agency, this proposal leaves open the possibility that agency employees could serve on peer review panels in certain circumstances. This proposal also identifies circumstances that raise questions about the independence of peer reviewers (*e.g.*, agency employees and agency-supported research projects), but it does not flatly preclude the selection of peer reviewers who raise some of those concerns. Members of the public are welcome to comment on whether these provisions strike the appropriate balance between safeguarding the fact and appearance of impartiality, on the one hand, and ensuring that qualified peer reviewers will not be precluded from service

based on unnecessarily stringent conflict-of-interest requirements, on the other. OMB is especially concerned about the government's need to recruit the best qualified scientists to serve as peer reviewers.

For this reason, OMB also seeks comment on whether any of the provisions of this proposal would unnecessarily burden participating scientists or discourage qualified scientists from participating in agency peer reviews. Specifically, OMB seeks comment on whether peer reviewers' disclosure requirements should be limited to a specific numbers of years, perhaps to activities occurring during the previous five or ten years, instead of extending back indefinitely. More generally, OMB seeks suggestions regarding how agencies can encourage peer-review participation by qualified scientists.

In addition, OMB seeks comment on whether agencies should be permitted to select their own peer reviewers for regulatory information. Although some observers may favor a system whereby a centralized body would appoint peer reviewers or supervise the details of the peer review process, OMB is not proposing such a system. Within the broad confines of this guidance, the agencies would retain significant discretion in formulating a peer review plan appropriate to each study. It is, however, arguable that an entity outside of the agency should select the peer reviewers and perhaps even supervise the peer review process. The latter approach might lend the appearance of greater integrity to the peer review process, but could be unduly inefficient and raise other concerns.

Finally, OMB seeks comment from the affected agencies on the expected benefits and burdens of this proposed Bulletin. OMB believes that most agencies usually submit the types of studies covered by this Bulletin to at least some peer review. As a result, while this Bulletin should improve the quality of peer reviews, it may not impose substantial costs and burdens on the agencies that they are not already incurring. OMB seeks comment on this and all other aspects of this proposed Bulletin.

Part II—Proposed OMB Bulletin and Supplemental Information Quality Guidelines

Section 1. Definitions

For purposes of this Bulletin and guidance:

"Administrator" means the Administrator of the Office of Information and Regulatory Affairs.

"Agency" has the meaning ascribed to it in the Paperwork Reduction Act, 44 U.S.C. 3502(1).

"Dissemination" has the meaning ascribed to it in OMB's Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies, 67 FR 8,452, 8,460 (Feb. 22, 2002) ("OMB's Information-Quality Guidelines").

"The Information Quality Act" means Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658).

"Major regulatory action" means the type of significant regulatory action that is defined in Section 1(f)(1) of Executive Order 12866 and is not exempt from the requirements of that Order.

"Regulatory information" means any scientific or technical study that is relevant to regulatory policy. Information is relevant to regulatory policy if it might be used by local, state, regional, federal and/or international regulatory bodies.

"Significant regulatory information" means regulatory information that satisfies the "influential" test in OMB's Information-Quality Guidelines.

"Study" refers broadly to any research report, data, finding, or other analysis.

Section 2. Peer Review of Significant Regulatory Information

To the extent permitted by law, agencies shall have an appropriate and scientifically-rigorous peer review conducted on all significant regulatory information that the agency intends to disseminate. Agencies need not, however, have peer review conducted on studies that have already been subjected to adequate independent peer review. For purposes of this Bulletin, peer review undertaken by a scientific journal may generally be presumed to be adequate. This presumption is rebuttable based on a persuasive showing in a particular instance. In addition, agencies need not have peer review conducted on significant regulatory information that relates to national defense or foreign affairs, or that is disseminated in the course of an individual agency adjudication or proceeding on a permit application.

During the planning of a peer review for significant regulatory information, the agency should select an appropriate peer review mechanism based on the novelty and complexity of the science to be reviewed, the benefit and cost implications, and any controversy regarding the science. Depending on these factors, appropriate peer review mechanisms for significant regulatory information can range from review by qualified specialists within an agency (if they reside in a separate agency program) to formal review by an independent body of experts outside the agency. The experts may be selected by the agency or an outside group.

Section 3. Additional Peer Review Requirements for Especially Significant Regulatory Information

If significant regulatory information is subject to the peer review requirements of Section 2 of this Bulletin and (i) the agency intends to disseminate the information in support of a major regulatory action, (ii) the dissemination of the information could otherwise have a clear and substantial impact on important public policies or important private sector decisions with a possible impact of more than $100 million in any year, or (iii) the Administrator determines that the information is of significant interagency interest or is relevant to an Administration policy priority, then, to the extent permitted by law, the agency shall have a formal, independent, external peer review conducted on the information. The peer review shall proceed in accordance with the following guidance:

Selection of Peer Reviewers: Peer reviewers shall be selected primarily on the basis of necessary scientific and technical expertise. When multiple disciplines are required, the selected reviewers should include as broad a range of expertise as is necessary. When selecting reviewers from the pool of qualified external experts, the agency sponsoring the review shall strive to appoint experts who, in addition to possessing the necessary scientific and technical expertise, are independent of the agency, do not possess real or perceived conflicts of interest, and are capable of approaching the subject matter in an open-minded and unbiased manner. Factors relevant to whether an individual satisfies these criteria include whether the individual: (i) Has any financial interests in the matter at issue; (ii) has, in recent years, advocated a position on the specific matter at issue; (iii) is currently receiving or seeking substantial funding from the agency through a contract or research grant (either directly or indirectly through another entity, such as a university); or (iv) has conducted multiple peer reviews for the same agency in recent years, or has conducted a peer review for the same agency on the same specific matter in recent years. If it is necessary to select a reviewer who is or appears to be biased in order to obtain a panel with appropriate expertise, the agency shall ensure that

another reviewer with a contrary bias is appointed to balance the panel.

Charge to Peer Reviewers: The agency shall provide to peer reviewers an explicit, written charge statement describing the purpose and scope of the review. The charge shall be appropriately broad and specific to facilitate a probing, meaningful critique of the agency's work product. Peer reviewers shall be asked to review scientific and technical matters, leaving policy determinations for the agency. This must be clearly stated and adhered to during the peer review process so the review is based solely on the science being evaluated. In addition, the agency shall be careful not to divulge internal deliberative information to the peer reviewers. The charge should generally frame specific questions about information quality, assumptions, hypotheses, methods, analytic results, and conclusions in the agency's work product. It should ask reviewers to apply the standards of OMB's Information-Quality Guidelines and the agency's own information quality guidelines. Where reviewers are expected to identify scientific uncertainties, they should generally be asked to suggest ways to reduce or eliminate those uncertainties.

Information Access: The agency shall provide peer reviewers sufficient information to enable them to understand the data, methods, analytic results, and conclusions of the material to be peer reviewed, with due regard for the agency's interest in protecting its deliberative processes. Reviewers shall be informed of the reproducibility and other quality guidelines issued by OMB and federal agencies under the Information Quality Act. If the document is a formal regulatory analysis, reviewers should be briefed on the content of OMB's guidelines for regulatory analysis. If aspects of the agency's work are likely to be controversial, reviewers should be provided relevant background information on those potential sources of controversy.

Opportunity for Public Comment: The agency shall provide an opportunity for other interested agencies and persons to submit comments. The agency shall ensure that such comments are provided to the peer reviewers with ample time for consideration before the peer reviewers conclude their review and prepare their report.

Peer Review Reports: The agency shall direct peer reviewers of the regulatory information—individually or often as a group—to issue a final report detailing the nature of their review and their findings and conclusions. The peer review report shall also disclose the names, organizational affiliations, and qualifications of all peer reviewers, as well as any current or previous involvement by a peer reviewer with the agency or issue under peer review consideration. If there is a group report, any partial or complete dissenting statements should be included with the group's final report. The agency shall also provide a written response to the peer review report(s) explaining: The agency's agreement or disagreement with the report(s), including any recommendations expressed therein; the basis for that agreement or disagreement; any actions the agency has undertaken or proposed to undertake in response to the report(s); and (if applicable) the reasons the agency believes those actions satisfy any concerns or recommendations expressed by the report(s). The agency shall disseminate the final peer review report(s) and the agency's written statement of response in the same manner that it disseminates the work product that was reviewed. All of these written materials should be included in the administrative record for any related rulemakings.

Consultation with OIRA and OSTP: Agencies shall consult with OIRA and OSTP concerning the sufficiency of their planned peer review policies. Upon request, an agency should discuss with OIRA how the agency plans to review a specific document covered by the Bulletin and whether such a plan is sufficient. This consultation is understood to serve as one of the pre-dissemination quality procedures envisioned by the Information Quality Act.

Certification in Administrative Record: If an agency relies on significant regulatory information subject to the requirements of this section in support of a major regulatory action, it shall include in the administrative record for that action a certification explaining how the agency has complied with the requirements of this Bulletin and the Information Quality Act with respect to the significant regulatory information at issue.

Section 4. Peer Review Procedures

a. Federal Advisory Committee Act

When considering selection of an outside panel of peer reviewers for regulatory information subject to the requirements of this Bulletin, an agency should assess the treatment of such a panel under the Federal Advisory Committee Act, and may retain a firm to oversee the peer review process with instructions to comply with principles consistent with those set forth in this Bulletin. See *Byrd* v. *EPA*, 174 F.3d 239 (D.C. Cir. 1999) (holding that peer review panels selected and supervised by outside consultants are not governed by the Federal Advisory Committee Act, 5 U.S.C.S. App. II §§ 1–15). Although such a firm can be engaged to oversee multiple peer review processes for an agency, the agency shall ensure that the firm itself possesses independence (and the appearance of independence) from the agency.

b. Agency Guidelines

Based on this supplement to OMB's information quality guidelines, each agency shall supplement or amend its own information quality guidelines to incorporate the requirements of Sections 2 and 3 herein on a prospective basis, except that an agency need not amend its guidelines if there is no reasonable likelihood that the agency will disseminate information covered by the requirements of Sections 2 and/or 3 of this Bulletin. In addition to incorporating these requirements, agencies should have specific guidelines as to what entanglements with agencies or affected businesses are so significant as to preclude an individual's participation as a peer reviewer, irrespective of other factors. Agency guidance should also address the following additional aspects of the peer review process, as well as any other matters they wish to address: the protection of confidential business information; any other needs for confidentiality in the peer review process (including any privacy interests of peer reviewers); and any types of information regarding the peer reviewers that should be publicly disclosed in addition to the information identified in Section 3 of this Bulletin (potentially including prior service as an expert witness, sources of personal or institutional funding, and/or other matters that might suggest a possible conflict of interest or appearance of a conflict of interest).

c. Waiver

The Administrator may waive some or all of the peer review requirements of Sections 2 and/or 3 of this Bulletin if an agency makes a compelling case that waiver is necessitated for specific information by an emergency, imminent health hazard, homeland security threat, or some other compelling rationale. As appropriate, the Administrator shall consult with the Director of OSTP before deciding whether to grant a waiver.

Section 5. Interagency Work Group on Peer Review Policies

The Administrator will periodically convene a meeting of an interagency group of peer review specialists and program managers, including the OSTP Associate Director for Science. The group may make recommendations regarding best peer review practices and may recommend other steps to expedite and improve agency processes.

Section 6. Reports on Agency Peer Reviews

Each agency shall provide to OIRA at least once each year:

- A summary description of any existing, ongoing, or contemplated scientific or technical studies that might (in whole or in part) constitute or support significant regulatory information the agency intends to disseminate within the next year; and
- The agency *s* plan for conducting a peer review of such studies under the requirements of this Bulletin, including the identification of an agency contact to whom inquiries may be directed to learn the specifics of the plan.

In order to minimize the paperwork involved, agencies should include this information in one of the periodic reports they submit to OMB under Executive Order 12866 or the Information Quality Act.

Section 7. Correction Requests Under the Information Quality Act

The Information Quality Act requires OMB to issue guidance concerning administrative mechanisms by which members of the public may seek to obtain correction of information maintained and disseminated by an agency. See Pub. L. 106–554, section 515(b)(2)(B). OMB must also monitor the agencies' handling of such correction requests. See id.(C).

In order to improve OMB's ability to assess the quality of information disseminated to the public and the adequacy of agencies' request-handling processes, an agency shall, within seven days of receipt, provide OIRA with a copy of each non-frivolous information quality correction request. If an agency posts such a request on its Internet website within seven days of receipt, it need not provide a copy to OIRA.

Upon request by OIRA, each agency shall provide a copy of its draft response to any such information quality correction request or appeal at least seven days prior to its intended issuance, and consult with OIRA to ensure the response is consistent with the Information Quality Act, OMB's government-wide Information Quality Guidelines, and the agency's own information quality guidelines. The agency shall not issue its response until OIRA has concluded consultation with the agency. OIRA may consult with OSTP as appropriate if a request alleges deficiencies in the peer review process.

Section 8. Interagency Comment

Interagency comment can assist in identifying questions or weaknesses in scientific and technical analyses. As part of its consideration of peer reviews, information quality correction requests, or major regulatory actions, OIRA may exercise its authority to request comment from other agencies. OIRA may make such comment public, or direct that it be included in the Administrative Record for any related rulemakings. Interagency comment may be conducted in addition to peer review, or may comprise the peer review required by Sections 2 and/or 3 of this Bulletin if it is conducted in accordance with the requirements of this Bulletin.

Section 9. Effective Date and Existing Law

The requirements of this Bulletin apply to information disseminated on or after January 1, 2004. The requirements are not intended to displace other peer review mechanisms already created by law. Any such mechanisms should be employed in a manner as consistent as possible with the practices and procedures laid out herein. Agencies may consult with OIRA regarding the relationship of this Bulletin with preexisting law.

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PENSION BENEFIT GUARANTY CORPORATION

Required Interest Rate Assumption for Determining Variable-Rate Premium; Interest Assumptions for Multiemployer Plan Valuations Following Mass Withdrawal

AGENCY: Pension Benefit Guaranty Corporation.

ACTION: Notice of interest rates and assumptions.

SUMMARY: This notice informs the public of the interest rates and assumptions to be used under certain Pension Benefit Guaranty Corporation regulations. These rates and assumptions are published elsewhere (or can be derived from rates published elsewhere), but are collected and published in this notice for the convenience of the public. Interest rates are also published on the PBGC's Web site (*http://www.pbgc.gov*).

DATES: The required interest rate for determining the variable-rate premium under part 4006 applies to premium payment years beginning in September 2003. The interest assumptions for performing multiemployer plan valuations following mass withdrawal under part 4281 apply to valuation dates occurring in October 2003.

FOR FURTHER INFORMATION CONTACT: Harold J. Ashner, Assistant General Counsel, Office of the General Counsel, Pension Benefit Guaranty Corporation, 1200 K Street, NW., Washington, DC 20005, 202–326–4024. (TTY/TDD users may call the Federal relay service toll-free at 1–800–877–8339 and ask to be connected to 202–326–4024.)

SUPPLEMENTARY INFORMATION:

Variable-Rate Premiums

Section 4006(a)(3)(E)(iii)(II) of the Employee Retirement Income Security Act of 1974 (ERISA) and § 4006.4(b)(1) of the PBGC's regulation on Premium Rates (29 CFR part 4006) prescribe use of an assumed interest rate (the "required interest rate") in determining a single-employer plan's variable-rate premium. The required interest rate is the "applicable percentage" (currently 100 percent) of the annual yield on 30-year Treasury securities for the month preceding the beginning of the plan year for which premiums are being paid (the "premium payment year"). (Although the Treasury Department has ceased issuing 30-year securities, the Internal Revenue Service announces a surrogate yield figure each month—based on the 30-year Treasury bond maturing in February 2031—which the PBGC uses to determine the required interest rate.)

The required interest rate to be used in determining variable-rate premiums for premium payment years beginning in September 2003 is 5.31 percent.

The following table lists the required interest rates to be used in determining variable-rate premiums for premium payment years beginning between October 2002 and September 2003.

For premium payment years beginning in:	The required interest rate is:
October 2002	4.76
November 2002	4.93
December 2002	4.96
January 2003	4.92
February 2003	4.94
March 2003	4.81
April 2003	4.80
May 2003	4.90
June 2003	4.53
July 2003	4.37

A Discussion of Office of Management and Budget (OMB) Implementation Guidelines for the Information Quality Act

September 30, 2003

Sustainable Fisheries Division, Alaska Region
National Marine Fisheries Service
Juneau, Alaska

OMB proposes to issue new guidance to support accomplishment of "genuinely independent and objective" peer review in the regulatory process in an effort to improve the quality, objectivity, utility, and integrity of information disseminated by the federal government to the public. OMB requests comments on the implementation of Section 515 of the Information Quality Act (P.L. 106-554) through the OMB Peer Review and Information Quality Guidelines Bulletin (hereinafter Bulletin). Items of particular concern taken up in some detail below include:

- *To the extent NOAA Fisheries is obligated to comply with the OMB guidelines, they must be integrated directly into the draft operational guidelines being developed under the Regulatory Streamlining Project (RSP).*
- *OMB must have some accountability for timely review and response time necessary to fulfill the role it has envisioned for itself under the draft guidelines so as to not hold agencies hostage during the rulemaking process.*
- *OMB must more adequately address logistical difficulties such as potential contracting and payment involved in executing external peer review.*

The following discussion provides initial comments to OMB's proposed guidance in relation to NOAA Fisheries' current guidance. Issues revealed in the draft bulletin and questions of perceived inconsistencies are taken up in answering the specific questions posed by OMB.

I. Is the scope of the Bulletin appropriate/adequate?

The scope of the Bulletin depends on how OMB defines the covered scientific, financial, or statistical information. OMB's proposal covers "significant regulatory information," qualified by several exceptions. OMB defines "significant regulatory information" as scientific or technical information that (i) qualifies as "influential" under OMB's information quality guidelines and (ii) is relevant to regulatory policies. According to OMB, "influential means the agency expects that information in the form of analytical results will likely have an important effect on the development of domestic or international government or private sector policies or will likely have important consequences for specific technologies, substances, products or firms." However, OMB's definition contrasts with the current interpretation provided by NOAA, which states "[influential] means information which is expected to have a genuinely clear and substantial impact, at the national level, on major public policy and private sector decisions." OMB arguably provides a more adequate scope in its proposal by allowing for the recognition of "important" effects on "domestic" policies rather than the more restrictive "clear and substantial impact" on the "national level." The design of the fishery management system in the United States depends on regional decisions and regional science, thus making necessary the recognition of regional, not national, impacts. The use of the word "domestic" more adequately represents the regional focus of fisheries management.[1] The Magnuson-Stevens Fishery Conservation and Management Act further emphasizes the importance of regional application of science and policy. Additionally, the volatile nature of fisheries science almost never allows the determination of "clear and substantial impacts." Consequently, OMB's definition of "significant regulatory information" provides the more appropriate initial breadth necessary to achieve adequate peer review consistent with the Information Quality Act.

OMB recommends exceptions to the peer review requirements including routine statistical and financial information such as Census Data, non-regulatory science such as that conducted by the NIH and NSF, applications for grants, science previously peer reviewed according to Bulletin standards, and information sensitive to national security. Additionally, the Bulletin recognizes waivers may be required in certain circumstances where court imposed deadlines or other exigencies make full compliance impractical. A good example of where a waiver might be applied in relation to fisheries management includes Inseason Management of exploited fish stocks, which often requires quick decisions to open or close a fishery based on the latest available data. The broad brush applied by OMB to applicable exceptions once again contrasts with NOAA's approach to the exceptions. In its guidance, NOAA provides a laundry list of exceptions explicitly

[1] Black's Law Dictionary defines "domestic" as "of or relating to one's own jurisdiction <in Alaska, a domestic corporation is an Alaskan one>." *Black's Law Dictionary*, 500 (1999).

exempting a number of items from the peer review requirements including third party information and archival or library holdings. In the context of fisheries management, the exceptions recommended by OMB likely provide adequate breadth to cover any necessary exceptions required, including those explicitly listed by NOAA.

In order to qualify for peer review, information must not only be "significant," but must also be "relevant" to regulatory policies. The Bulletin currently describes relevance as "information that might be used by regulatory bodies." The current definition of "relevant" is too overbroad and ambiguous because it includes information that "might be" and is not actually used in regulatory decisions. Black's Law Dictionary defines relevant as "logically connected and tending to prove or disprove a matter in issue."[2] The use of the Black's definition or something similar in the Bulletin will further clarify the intent and application of the Bulletin consistent with the Information Quality Act.

To ultimately be subject to peer review, the information must be "disseminated," meaning information is distributed to the public. This means that only information already distributed or information that will be distributed to the public, which an agency bases its regulations on, is subject to the peer review requirements. If the intent of peer review is to ultimately enhance the credibility of information on which agencies base their opinions, the definition of dissemination should be expanded to include more than just the science the agency chooses not to withhold. Understandably, certain information must be withheld based on confidentiality or when information must be verified before release. Nonetheless, clandestine decisions invite skepticism, and skepticism invites lawsuits. Consideration of a more liberal definition may provide more credibility to agency decisions and potentially result in fewer legal challenges under the "arbitrary and capricious" standard.

In Section 2, the charge to peer reviewers presents the appropriate approach to describing the purpose and scope of the review. Agencies must limit peer reviewers to determinations of the science underlying the policy, not the policy itself. However, constraining a private reviewer to a federal bureaucratic process probably goes further than necessary and limits the objectivity OMB is trying to achieve. Therefore, a requesting agency should *recommend* that a peer reviewer follow the Information Quality Guidelines, but should never *require* it.

II. Do the provisions of the Bulletin safeguard the fact and appearance of impartiality while ensuring qualified peer reviewers are not precluded from service based on unnecessarily stringent conflict-of-interest requirements?

Several problems exist within the bulletin regarding the appearance of impartiality. First, Section 2 fails to define "scientific journal." Many scientific journals are privately

[2] *Black's Law* Dictionary, 1292 (1999).

funded or receive significant funding from private interests. Therefore, the agency implies bias if it simply defers to the fact that the information has already been peer reviewed in a scientific journal. The allowance for a rebuttable presumption simply presents an opportunity for continuous challenges against this ambiguous provision.

Second, the exemption from peer review of information presented in the course of agency adjudication implies bias. Whether in the course of a legal or administrative challenge, information presented as part of agency adjudication, especially new information regarding endangered species, often most needs the validation of independent peer review to appear impartial. Exempting previously unreviewed information from peer review requirements could exhibit the greatest form of bias by relying on unconfirmed information from a single source in a potentially far-reaching legal decision. Disregarding bias, the lengthy process required for peer review may preclude its inclusion in an adjudicative setting that often demands efficiency. However, if an agency "springs" a study midstream in adjudication absent any validation outside its own, practically speaking, it will undoubtedly be perceived as bias.

Lastly, Section 2 fails to define an adequate method for the selection of appropriate peer review mechanisms such as internal review by the agency or external review by an independent panel. Undoubtedly, allowing the agency to select its own experts inherently presents the appearance of bias. OMB recommends using the very subjective qualitative criteria of novelty, complexity, and controversy to select peer review mechanisms. Using such qualitative terms to determine whether the agency conducts an internal or external review may imply a bias. OMB should develop a more quantifiable and less subjective method for deciding whether qualified specialists within the agency or an independent outside body of experts conduct the peer review.

Section 3 provides a number of problems as well. First of all, a process that allows a non-random selection process inherently implies bias, regardless of the limitations you place on the selectors. To appear completely impartial, some form of random selection should occur from a pre-established pool of candidates selected by an external committee. OMB's selection process for peer reviewers provides 4 factors for determining whether an individual satisfies the broad criteria of scientific and technical expertise, independence from the agency, no real or perceived conflicts of interest, and the capability of approaching the subject matter in an open-minded and unbiased manner. The factors used to identify the criteria of reviewers includes whether the individual: (i) has any financial interest; (ii) advocated a position on the specific matter at issue in recent years; (iii) is subject to substantial direct or indirect funding; or (iv) has recently conducted multiple reviews for the agency or has recently conducted a review on the same specific matter for an agency. However, the Bulletin fails to suggest whether the factors are dispositive, weighted in any manner, or how they will be consistently applied. The ambiguity of the application of the factors and criteria precludes any possibility of

them being unnecessarily stringent. The only unambiguous provision of the section states that if it is necessary to select a reviewer who is or appears to be biased the agency shall ensure that another reviewer with a contrary bias is appointed to balance the panel, which clearly supports the appearance of impartiality. Consequently, OMB should give more attention to the method by which the guidelines select reviewers, particularly in reference to Section 2, if it wishes to ensure the appearance of impartiality in the peer review process as a whole.

In Section 4, the Bulletin recommends the retention of an outside firm in the selection of an external panel of peer reviewers to ensure the independence and appearance of independence of the reviewers. The Bulletin states that hiring an outside firm is consistent with the Federal Advisory Committee Act. However, OMB provides no additional guidelines for the firm selection process. If the agency pays the firm, an implied appearance of bias exists. OMB should explain how a peer review management firm may be hired by an agency while achieving the requisite independence in order to safeguard the appearance of impartiality.

III. Do any of the provisions of this proposal unnecessarily burden participating scientists or discourage qualified scientists from participating in agency peer reviews?

The largest potential deterrent to participation by scientists consists of the imposition of a rigid bureaucratic process to the peer review process. The intent of peer review consists of the effort to provide a free, unbiased, and open-minded evaluation of scientific processes absent inflexible rules of evaluation. Therefore, as stated previously, the requirement of Section 3 of the Bulletin should state that a requesting agency should *recommend* that a peer reviewer follow the Information Quality Guidelines, but should never *require* it.

OMB should also recognize that scientists are busy people. OMB should neither assume nor expect that private, industry, or academic scientists will be at the agency's beck and call for peer review. Moreover, OMB should recognize the impracticality of imposing a heavy-handed mandate on selected outside interests to conduct a peer review on their own time. If reviewers spend time on an agency review request they likely lose money from their daily operations. With that said, OMB should recognize that some form of compensation might be required to encourage peer reviewers to participate. Compensation, of course, contradicts some of the provisions of the Bulletin that attempt to alleviate the appearance of bias in the selection of peer reviewers. However, without some form of standardized compensation, peer review may both unnecessarily burden participating scientists and discourage potential reviewers from participating. OMB

should explore compensatory incentives that encourage scientists to participate, but simultaneously do not present a continued revenue stream to those scientists.

Furthermore, OMB should consider an anonymity provision to encourage peer review. Peer review never occurs in a vacuum and is subject to influence regardless of where or when it occurs. For instance, a particular decision or opinion expressed by a scientist in an agency peer review could affect their future funding from other sources and frustrate the intent of the peer review process by affecting the outcome of their decision. OMB might consider a confidentiality provision geared toward controversial issues or at the request of the reviewer. This provision might allow the identification of the institution or organization and status/rank/title of the reviewer to establish credibility of the review, but not the actual name the reviewer. Without an anonymity provision, controversy and its potential effects may deter some reviewers from participating in peer review of controversial issues.

OMB seeks disclosure from peer reviewers regarding any advocacy position they may hold regarding a given issue. Disclosure requirements add to the transparency of the process and should be required. Since disclosure adds to the transparency of the process, and therefore the validity, the disclosure requirements should extend back indefinitely. The "contrary bias" provision of Section 3 requires that the agency must balance bias in the peer review. Limiting the time period that may be observed to determine bias frustrates eliminating the appearance of bias by allowing a reviewer who expressed bias 10 years and 1 month ago to be selected where they would not have been selected had they expressed the same bias less than 10 years ago. This may further prevent the appointment of a "contrary bias" on the peer review panel, thus exhibiting the appearance of bias. However, OMB should develop criteria providing a weighted scale for determining bias of disclosed information to prevent the appearance of arbitrary peer selections by agencies. In general, the indefinite disclosure provision should neither encourage nor discourage potential peer reviewers as long as the agency adequately applies the "contrary bias" provision. Therefore, OMB should not restrict the disclosure requirements to a specific number of years.

IV. Should Agencies be permitted to select their own peer reviewers for regulatory information?

Ideal peer review consists of an open process where peers in specific or related disciplines critique a particular scientific study or series of studies as a passive observer absent external influences. The most effective method that achieves "ideal" peer review emulates the notice and comment process and consists of broadcasting the information to an infinite audience that allows individuals to volunteer their independent peer reviews without any compensation other than the notion that they have benefited science and

society. However, creating another administrative process equivalent and parallel to the notice and comment process presents an unduly burdensome proposal. Agencies can hope that peer reviewers will volunteer with altruistic intentions, but that will be unlikely or at least uncommon. Therefore, peer review of agency science requires some selection or appointment process.

OMB should provide explicit attention to the allowable methods of peer review panel selection to meet the goal of apparent impartiality. Direct appointment of peer reviewers by the agency inherently implies bias. On the other hand, even an agency that directly appoints the centralized body that selects its peer reviewers may be perceived simply as "the wolf guarding the foxes that are guarding the henhouse." In an agency such as NOAA Fisheries, which already suffers from the external perception of bias due to the makeup of the Fishery Management Councils, the selection process of peer reviewers imperatively requires distance from the agency. Although OMB does not propose such a system, NOAA Fisheries would benefit from the appointment of peer reviewers by an independent centralized body wholly organized and funded by a separate agency.

By distancing the agency from the peer review selection process the agency achieves the appearance of impartiality and the subsequent credibility given to independently reviewed studies. In any event, the agency should at least appoint an independent entity, possibly a contractor, outside the agency to supervise the peer review process in accordance with the guidelines. Consequently, OMB should provide additional guidance on how agencies should conduct selection of an independent authority to monitor peer review consistent with the requirements of the Information Quality Act.

V. What are the benefits and burdens of the proposed Bulletin?

The Bulletin goes to great lengths to present the appropriate measures for ensuring accountability and impartiality. However, OMB provides no indication of how long this process should take. In many contexts rulemaking already requires enormous amounts of time and resources. Particularly with economically sensitive systems such as those employed in fisheries management, agencies must operate on restricted timelines. Given the comprehensive nature of the guidelines suggested by OMB, the potential for protracted rule development exists. An additional prolonged process for verifying peer review serves to create a larger burden on the administrative process and more inefficiency in rulemaking.

Numerous provisions increase the potential regulatory burden on the agency. The Bulletin proposes the inclusion of all peer review materials in the administrative record for all related rulemakings, thus requiring additional analysis by the agencies to support their decisions. Additionally, in Section 8, OIRA reserves the authority to request comment from other agencies, thus leaving open the possibility of other agencies holding

one agency's administrative process hostage for an indefinite period. Furthermore, OMB mandates an opportunity for public comment on peer review, requiring additional time and resources. OMB should suggest specific and reasonable timelines for the conduct and completion of the peer review process to ensure that the process is not cursory, but also is not overly burdensome on the agency.

VI. Supplementary Comments

Section 4 of the Bulletin presents an important issue regarding peer review of information used by NOAA Fisheries in the rulemaking process. Much of the information used by NOAA Fisheries involves scientific and statistical data considered confidential or private under a number of statutes.[3] Therefore, most of the peer review requirements under Section 2 and 3 become inapplicable. Absent the requirements under Section 2 and 3, the peer review requirements under the Bulletin become nothing more than an administrative paperwork exercise. OMB should express explicitly how it intends to provide meaningful peer review in light of restrictive confidentiality requirements.

Waiver of the requirements of some or all of the provisions of Section 2 and 3 of the Bulletin provides some relief for rulemakings subject to time constraints. OMB suggests that if an agency makes a compelling case based on an emergency, imminent health hazard, homeland security threat, or *some other compelling rationale*, the Administrator of OIRA may grant a waiver upon mandatory consultation with the Director of OSTP. Presumably, some of the rulemakings conducted by NOAA Fisheries fall within the compelling rationale due to their time sensitive nature such as the Inseason Management measures mentioned previously. However, the Bulletin does not indicate any detail as to the process by which waiver is to occur. For instance, the Bulletin fails to indicate whether the consultation or the rationale behind the resultant decision must be published. Certainly, publishing the waiver and its rationale will alleviate the appearance of impropriety and supports the "transparency" efforts of the Information Quality Act, but stands to place an additional administrative burden on the agency. Moreover, the Bulletin fails to indicate any timeline associated with the waiver process leaving open the possibility that OMB or OIRA may hold an agency "hostage." Therefore, OMB should explain the details of the waiver provision including time constraints and whether the consultation and decision must be published.

[3] See Magnuson-Stevens Fishery Conservation and Management Act, Freedom of Information Act, Privacy Act, Marine Mammal Protection Act, South Pacific Tuna Act, and Trade Secrets Act.

Additional questions arise as to information access. OMB mandates that agencies provide peer reviewers sufficient information to enable them to understand the data, methods, analytic results, and conclusion of the material for peer review. The primary question centers on the definition of "sufficient." How far back in the scientific process must the agency allow the reviewer to go to make its determination? In the case of synthesized or interpreted data must the raw data also be supplied? OMB should adequately address these questions.

B Cook

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AT-SEA PROCESSORS ASSOCIATION
Partners for Healthy Fisheries
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FOR IMMEDIATE RELEASE
September 25, 2003

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Alaska Pollock Fishery Receives Preliminary Determination of Sustainability

Seattle, WA—A panel of internationally renowned marine scientists and fishery management experts has made a preliminary determination that the largest U.S. fishery—the Alaska pollock fishery—is responsibly managed in accordance with the standards established by the non-profit, U.K.-based Marine Stewardship Council (MSC).

The draft determination of sustainability was presented in a 200-page report submitted to the MSC by Scientific Certification Systems, Inc., an MSC-accredited certification company.

The third party, independent evaluation included an in-depth review of the Alaska pollock fishery management system, the effects of the pollock fishery on the ecosystem the status of the Alaska pollock resource. In preparing its recommendation, the certification body and its team of outside experts consulted more than 10,000 pages of scientific reports and documents on the fisheries, including lengthy submissions by fishing and environmental interests.

In January 2001, the At-sea Processors Association (APA), which represents the U.S. pollock catcher/processor fleet, applied to have the Alaska pollock fisheries evaluated against the MSC's standard for sustainable fishing. After an exhaustive two and one-half year review, which included extensive consultations with fishery managers and scientists, environmentalists, fishermen and others, the certification body issued its draft report giving a preliminary green "thumbs-up" on the Bering Sea/Aleutian Islands (BS/AI) pollock fishery.

The BS/AI pollock fishery accounts annually for approximately one-third the weight of all U.S. seafood landings. A draft report on the smaller Gulf of Alaska (GOA) pollock fishery is expected soon.

APA spokesman Jim Gilmore said, "This comprehensive evaluation of the Alaska pollock fishery confirms the views of many other respected fishery managers and scientists that the Alaska pollock fishery is conservatively and responsibly managed." "We understand that the certifier's determination is only preliminary, but it is a very significant determination nonetheless," Gilmore added.

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The draft report on the BS/AI pollock fishery has been submitted to the MSC for posting on its website at www.msc.org.

Among other findings, the report notes that--

- the BS/AI pollock resource is at a high level of stock abundance,
- stock assessment work by U.S. government scientists is of world-class caliber,
- enforcement and monitoring of the fisheries meets high standards, and
- the fishery is managed under a complex set of regulations that effectively spreads out catches, where necessary, over time and space.

Following peer review and additional public comment, the pollock certification team will make a final determination. If Alaska pollock is certified as responsibly managed in accordance with MSC standards, Alaska pollock users will be eligible to apply for use of the MSC eco-label.

For additional information, contact Jim Gilmore at (202) 661-3975 or by e-mail at jgilmore@atsea.org. To find out more about the MSC's program to promote responsible fishing, please visit www.msc.org.

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September 26, 2003

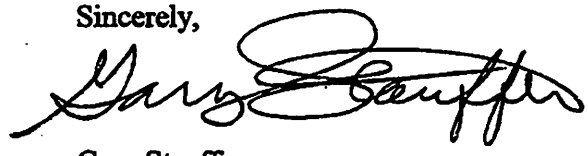
Open Letter to the Bering Sea Crab Industry

Over the past couple years, we have been approached by a number of folks involved in the Bering Sea crab fishery about the possibility of setting up a cooperative research program to improve our confidence in the annual assessment of Bering Sea crabs, particularly our annual Eastern Bering Sea crab/groundfish trawl survey. Our Center is very interested in working with the industry and Alaska Department of Fish and Game to establish a cooperative research program. Under the Magnuson-Stevens Act we are encouraged to use the resources of the private sector to survey fishery resources given an acceptable scientific plan. Also under Title 15 Section 1525 of the US Code, we are authorized to engage in joint projects with non-profit or research organizations and other agencies on matters of mutual interest. Joint projects with private entities are not authorized. As a result we will need to partner with a formal non-profit industry organization which, we would hope, would have the support of all of the Alaska and Northwest components of the crab industry.

Our goal is to establish a long-term cooperative research program that utilizes the resources and talents within the industry, Alaska Department of Fish and Game (ADFG) and NOAA Fisheries. One of the first steps to be undertaken is for the industry to establish a non-profit foundation with a Board of Directors from the industry. The Board's principal function would be to develop project priorities in collaboration with agency scientists and to identify, collect and disburse industry funding and other support. A second step would be for the Board and the Agencies to formalize the partnership though a Memorandum of Understanding (MOU) that meets the legal requirements of all parties. This MOU should be a multi-year commitment assuming an annual availability of funds. The Agencies will need to identify scientists to serve as advisors to the board to assist in the development of a research agenda and project priorities. The Agencies will also need to identify sufficient funds and resources to support the cooperative program. To have the program in place for the 2004 summer field season, these first two steps need to be completed relatively soon so that we have sufficient time to plan the research effort, schedule vessels, and identify a science team to undertake the proposed research.

We are committed to meeting with representatives from the industry and ADFG to begin working on developing this collaboration. We look forward to receiving your comments to our proposal and to working with all entities to build this partnership. I will serve as the interim point of contact for NOAA Fisheries. I can be reached at 206 526-4170 or at gary.stauffer@noaa.gov.

Sincerely,



Gary Stauffer
Director, Resource Assessment and
Engineering Division