

U.S. DEPARTMENT OF COMMERCE
Office of Inspector General



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RELEASE**

***NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION***

*NMFS Laboratory Structure
Should Be Streamlined*

Audit Report No. STL-8982-8-0001 / November 1997

Office of Audits, Seattle Regional Office



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EXECUTIVE SUMMARY

The National Marine Fisheries Service (NMFS) is responsible for ensuring the conservation and management of the nation's living marine resources. To accomplish its mission, NMFS relies on an extensive laboratory network of nearly 30 facilities nationwide. Field operations are divided into five regions: Northeast, Southeast, Alaska, Northwest, and Southwest. Many NMFS's facilities are greatly in need of repair, and several renovation and new construction projects are planned or underway.

We conducted a performance audit to assess streamlining and reconfiguration opportunities within the NMFS laboratory network. During our audit, we evaluated the need for each facility to be at its current location, the overall condition of each facility, and the utilization of both current and planned facilities. We also explored any special considerations related to individual facilities. We reviewed research programs for relevance to NOAA's mission and duplication of effort (both within NMFS and with outside organizations). We visited nearly all NMFS laboratories.

We concluded that, in general, the NMFS laboratories are conducting high priority research in well-utilized facilities. However, we also identified several opportunities for NMFS to streamline its field structure:

- ! In the Northeast Fisheries Science Center, we recommend closing the Milford laboratory and transferring its programs to the new James J. Howard Marine Sciences laboratory. We determined that Milford is conducting low priority research in an underutilized facility. Our analysis has shown that benefits of approximately \$5 million could be realized over a five-year period by closing the Milford facility (see page 5).
- ! In the Southeast Fisheries Science Center, we recommend closing the National Seafood Inspection laboratory (NSIL). We also recommend moving the programs and personnel from the Bay St. Louis and Panama City laboratories into space at the Pascagoula laboratory previously occupied by the NSIL. We recommend transferring the Oxford Lab and most of its programs to the State of Maryland. Programmatic work now being done at Oxford, which would continue as a NMFS responsibility, should be transferred to the Beaufort Lab. Both NSIL and Oxford are conducting low priority research that could be performed by other agencies. We estimate that closing NSIL will yield approximately \$2.6 million in benefits over a five-year period, and that NMFS will realize net benefits of approximately \$2.4 million over a five-year period by transferring Oxford (see pages 9 and 11).

Our review determined that the high priority research being conducted at Bay St. Louis and Panama City could be more cost-effectively performed at Pascagoula. Our analysis has shown that moving Bay St. Louis results in approximately \$257,000 in benefits over a five-year period, and that moving Panama City results in approximately \$1.6 million in benefits over a five year period (see pages 9 - 11).

- ! In the Alaska Fisheries Science Center, we noted that NMFS is considering transferring some programs from the Sand Point facility in Seattle to the proposed Auke Cape, Alaska, facility upon completion. We evaluated this option and recommended that NMFS should not implement this transfer due to potential programmatic, utilization, and cost inefficiencies. We also noted that the space estimates for the planned Auke Cape facility are inflated and that cost estimates for this project have nearly doubled since the OIG last addressed this issue in 1994 (see page 15).

- ! In the Northwest Fisheries Science Center, we considered the option of moving the Montlake laboratory programs to the Sand Point facility. This option is tied to the potential recommendation mentioned above to re-locate some of the Alaska Center's Sand Point programs to the proposed Auke Cape facility. Our analysis revealed that this option should also not be implemented because of inadequate types and amounts of space available at Sand Point (see page 17).

- ! In the Southwest Fisheries Science Center, we recommend vacating both the Tiburon lab, as planned by NMFS, and the La Jolla laboratory due to safety reasons, and transferring their programs and personnel to Honolulu, Sand Point, Newport, and a proposed Santa Cruz facility. As part of this recommendation, we are suggesting that the proposed Tiburon replacement facility, at Santa Cruz be expanded to accommodate programs and personnel from La Jolla. The net present value over a five-year period of costs associated with expanding construction efforts at Santa Cruz and transferring La Jolla programs to Santa Cruz, Sand Point, Newport, and Honolulu is approximately \$20 million. Compared to the potential costs associated with building a replacement facility in La Jolla due to an inevitable emergency situation, which we estimate at approximately \$33.5 million, proactive measures to vacate La Jolla now would provide benefits in the form of a cost avoidance of approximately \$13.5 million (see page 21 and Appendix F).

By implementing our recommendations, NMFS could put approximately \$6 million of funds to better use. The \$6 million represents the net present values of benefits over costs for the two-years following implementation of our recommendations. As required by OIG policy, these claimed funds to be put to better use have been limited to a two-year period for reasons of conservatism and consistency. However, as summarized on the following page, projected savings over a five-year period would be approximately \$25.3 million based on the net present value of benefits over costs for that period. We believe that the five-year period offers a more meaningful and useful analysis for studies of this nature because analysis can sometimes be distorted by significant first- and second-year costs. NOAA's June 1996 consolidation study was also based on a five-year benefit analysis. The five-year cost/benefit analyses can be found in Appendices B, C, and F.

The net present value of benefits over costs by lab is summarized below:

Recommendations:	Net present value of benefits over two years	Net present value of benefits over five years
Close the Milford lab and move programs to the Howard lab.	\$2,600,000	\$ 5,012,000
Close the National Seafood Inspection Laboratory.	884,000	2,565,000
Transfer the Oxford lab	1,601,000	2,379,000
Close the Bay St. Louis lab and move programs to the Pascagoula lab.	(149,000)	257,000
Close the Panama City lab and move programs to the Pascagoula lab.	1,092,000	1,609,000
Close the Tiburon and La Jolla labs and move programs to the proposed Santa Cruz lab, and to the Sand Point, Newport, and Honolulu labs.	-0-	13,530,000 ¹
Total	\$6,028,000	\$25,352,000

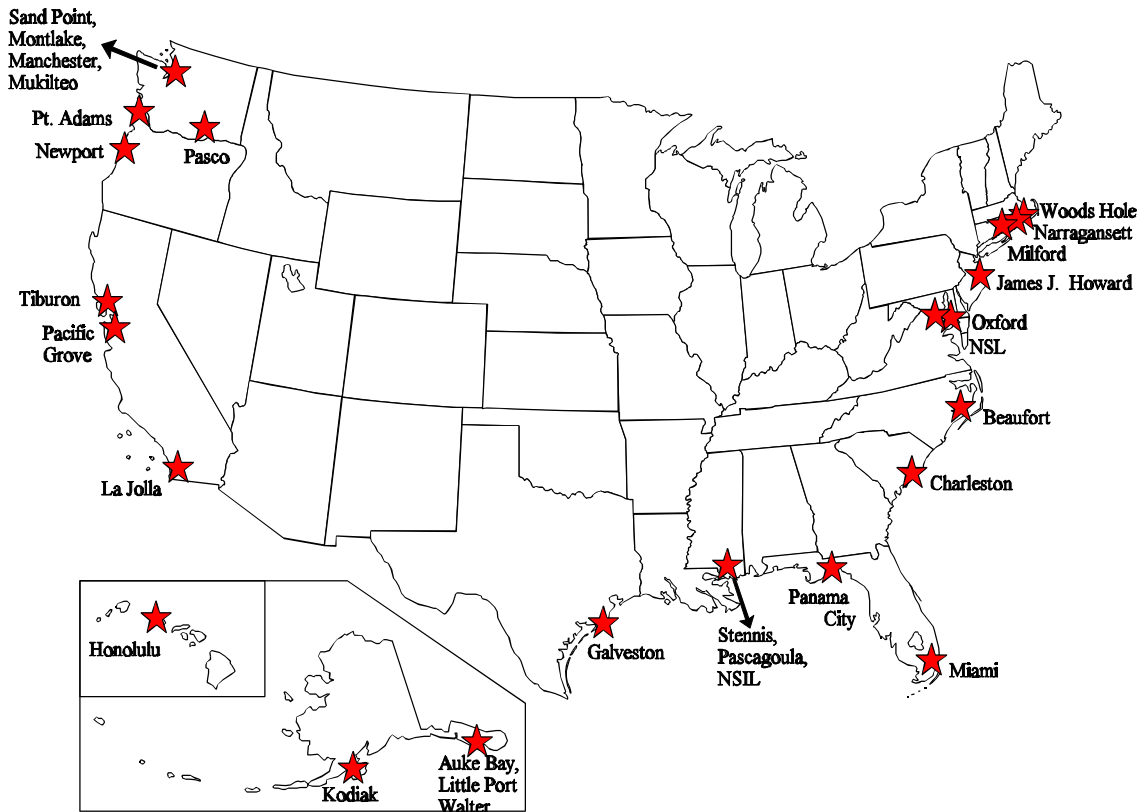
With the exceptions of consolidating the Panama City lab, and vacating the Tiburon lab and the Southwest Fisheries Science Center in La Jolla, NOAA disagreed with our findings and recommendations. NOAA also disagreed with our net present value calculations of costs and benefits associated with our recommendations, primarily due to their concern that our analyses appeared to be based on the termination of employees involved in the programs at “to be closed” facilities and that we appeared to anticipate the continuation of high priority programs at other facilities without staff to conduct them. NOAA, however, appears to have misread our net present value cost/benefit analysis sections. Our analyses of facilities conducting high priority research included the assumption that any position vacancies resulting from program transfers would be backfilled at the new site. Therefore, NOAA’s concerns are unfounded and no changes were needed to our analyses to address NOAA’s comments. Summaries of NOAA’s comments are presented in the appropriate sections of this report. For reasons stated after each section, we did not agree with NOAA’s comments and reconfirm our recommendations. NOAA’S response is included as Appendix J to the report. Due to their length, we did not include the appendices to the NOAA response. The appendices may be obtained from the OIG upon request.

¹Note that the \$13,530,000 in benefits identified in the La Jolla analysis do not represent actual funds available to NOAA for other uses, but rather represent a potential cost avoidance compared to the alternative of emergency closure and construction of a replacement facility.

INTRODUCTION

The National Marine Fisheries Service (NMFS) of the National Oceanic and Atmospheric Administration is responsible for ensuring the conservation and management of the nation's living marine resources. Research is conducted within the U.S. Exclusive Economic Zone (EEZ) and the marine and estuarine habitats upon which living marine resources depend. NMFS is responsible not only for developing scientific information and data to be used as the basis for fishery management plans and recommendations on habitat use, but also for promulgating and enforcing regulations for the management plans developed by the eight Regional Fishery Management Councils for the Secretary of Commerce.

NMFS relies on an extensive laboratory network of nearly 30 facilities nationwide for research, data collection, and analysis necessary to accomplish its objectives. Field operations are divided into five regions: Northeast, Southeast, Alaska, Northwest, and Southwest. A complete list of NMFS laboratories and field stations is included in Appendix A. A map of the major labs follows:



The average age of the major NMFS laboratories is over 30 years; however, 12 are substantially older. Many of the facilities are greatly in need of repair. NOAA is currently involved in several renovation and new construction projects--major projects are planned or in process in Auke Cape, Alaska; Honolulu, Hawaii; Galveston, Texas; Lafayette, Louisiana; Charleston, South Carolina; Santa Cruz, California; Kodiak, Alaska; and Oxford, Maryland.

Purpose and Scope of Audit

The purpose of our audit was to assess streamlining and reconfiguration opportunities within the NMFS laboratory network. We have visited nearly all NMFS laboratories during our audit. Our fieldwork began in August 1996 and ended in February 1997.

During our review, we evaluated the need for each facility to be at its current location, the overall condition of each facility, and the utilization of both current and planned facilities. We also explored any special considerations related to individual facilities. We reviewed research programs for relevance to NOAA's mission and duplication of effort (both within NMFS and with outside organizations). Through this process, we gained a comprehensive understanding of NMFS's current and expected facility and program status. We were then able to identify several consolidation options. We performed a cost/benefit analysis on each of these options and recommended implementing those options with positive net benefits, unless overriding factors applied. Our analyses are incorporated throughout this report, and a detailed description of our methodology is attached as Appendix G.

We reviewed NMFS's management controls over the efficiency and effectiveness of its laboratory structure and confirmed that NOAA does not have a successful record of closing laboratories. We did not identify any laws applicable to our audit objectives. We identified OMB Circular A-76 as a regulation applicable to our audit objectives. The availability of private sector laboratory services is discussed on page 9 of this report.

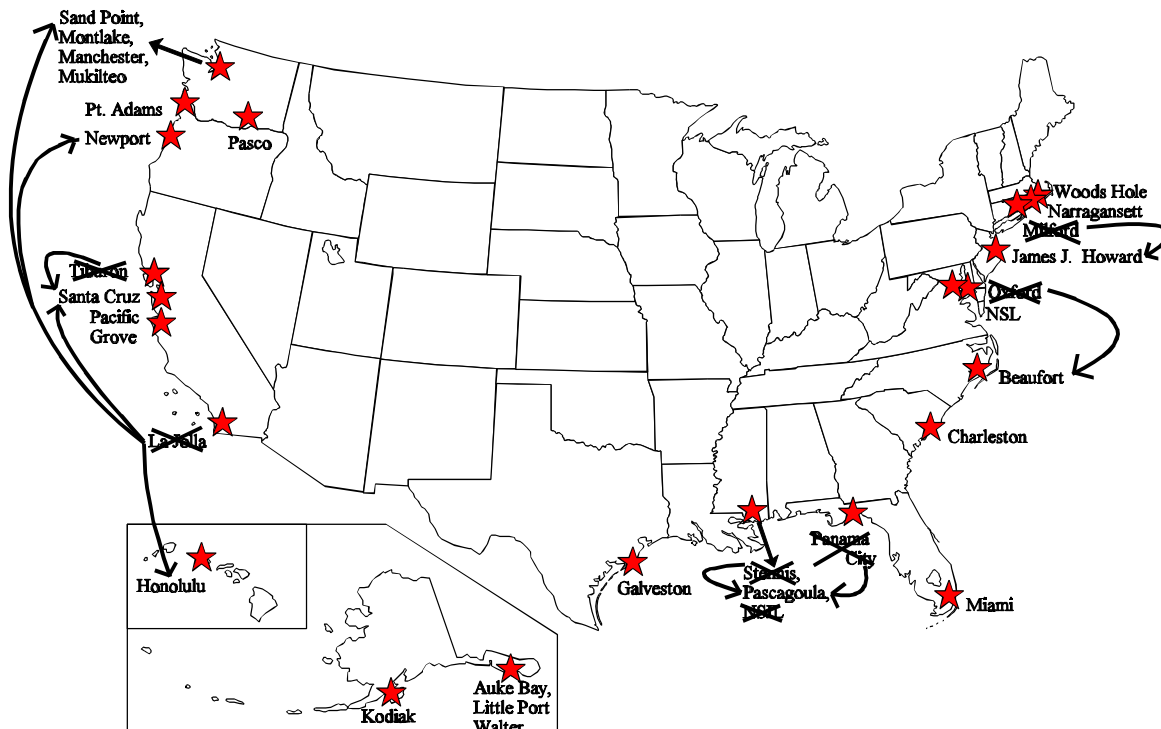
NOAA conducted a consolidation study and issued a report in June 1996. NOAA's study was updated in June 1997. We relied on some of the data NOAA obtained for the study, primarily the data related to the prioritization of NMFS science programs at the labs. A description of the NOAA data used in our analyses is presented in Appendix I to the report. We relied on computer-processed data for only background and informational purposes.

This review was conducted in accordance with generally accepted government auditing standards and was performed under the authority of the Inspector General Act of 1978, as amended, and Department Organization Order 10-13, dated May 22, 1980, as amended.

FINDINGS AND RECOMMENDATIONS

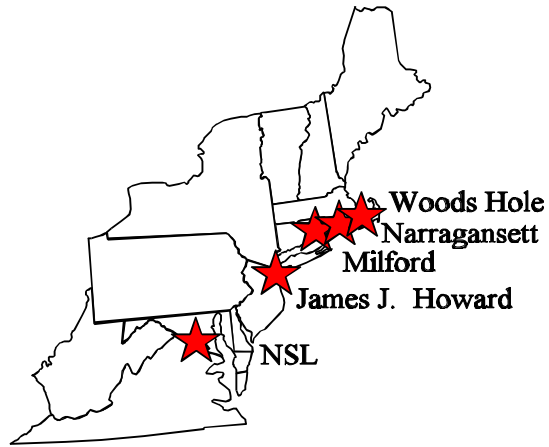
NMFS conducts research at laboratories located throughout the United States. In general, these labs are conducting high priority research in well-utilized facilities. However, our review did identify several opportunities for NMFS to streamline its field structure.

In the Northeast Fisheries Science Center, we recommend closing the Milford laboratory and transferring its programs to the new James J. Howard Marine Sciences laboratory. In the Southeast Fisheries Science Center, we recommend closing the National Seafood Inspection Laboratory (NSIL). We also recommend moving the programs and personnel from the Bay St. Louis and Panama City laboratories into space at the Pascagoula laboratory previously occupied by NSIL. We recommend transferring the Oxford lab and most of its research to the State of Maryland. In the Alaska and Northwest Fisheries Science Centers we determined that options involving (1) the transfer of the Alaska Center's programs at the Sand Point facility in Seattle to the proposed facility at Auke Cape, and (2) the transfer of Northwest Center programs at Montlake to Sand Point should not be implemented. In the Southwest Fisheries Science Center, we recommend vacating the Tiburon and La Jolla laboratories and transferring their programs and personnel to Honolulu, Sand Point, Newport, and the proposed Santa Cruz facility. As part of this recommendation, we are suggesting that the proposed Santa Cruz facility be expanded to accommodate extra programs and personnel. Our recommendations are summarized graphically below:



NORTHEAST FISHERIES SCIENCE CENTER

The Northeast Center consists of a Fisheries Science Center headquartered in Woods Hole, Massachusetts, and five major laboratories located in Woods Hole; Narragansett, Rhode Island; Milford, Connecticut; Sandy Hook, New Jersey; and Washington, D.C. The Northeast Center is currently pursuing investigations into (1) the physical and chemical processes affecting the abundance of marine resources, (2) the effects of pollution and habitat degradation and loss on marine resources, and (3) the factors controlling the variability in abundance, recruitment, and use of living marine resources and the ability to predict these factors. The purpose of these investigations is to define the limits to which habitat and living resources of the Northwest Atlantic can be modified and still ensure that living resource populations can sustain themselves at levels consistent with prevailing fishery management goals.



The Woods Hole laboratory was established in 1871. The lab studies fish population dynamics and conducts stock assessments in support of fisheries management. Researchers interact with the Woods Hole Oceanographic Institute and the Marine Biological Laboratory, both located near the NMFS lab. The Woods Hole lab also provides docking facilities for the Center's two large research vessels, the *R/V Delaware* and the *R/V Albatross*.

The Narragansett laboratory, established in 1966, principally studies large marine ecosystems. Narragansett has the rare capability to study the early life stages of cod and haddock because of the quality of seawater available there. Much information is obtained from satellite remote sensing data accessed through the lab's CoastWatch node and through cooperation with the University of Rhode Island.

The Milford laboratory investigates growth, normal life functions, diseases, and genetics of fish and shellfish. The lab was established in 1931 to study the biological problems of the Connecticut oyster industry. It has extensive aquaculture facilities that are currently used to conduct scallop and tautog (blackfish) aquaculture research. It also maintains a collection of marine unicellular algae.

The James J. Howard laboratory conducts studies on human-induced changes in the marine environment and their effects on the distribution and abundance of marine populations. The lab was constructed in 1993 following the destruction by fire of its predecessor, the Sandy Hook lab. This facility, which is in excellent condition, is being leased from the state and has extra space available.

The National Systematics Laboratory (NSL) is located at the Smithsonian Museum of Natural History in Washington, D.C. NSL is the center for the taxonomic identification of fishes, crustaceans, and squids for all of NMFS. This is a small operation (less than 10 FTEs) being conducted in space provided by the Smithsonian Institution at no cost.

We toured all of these facilities except for NSL, spoke with staff in each major program area, and interviewed collaborators and customers as appropriate. After considering the options available in the Northeast, we determined that NMFS resources could be used more efficiently by closing the Milford lab and relocating its programs to the James J. Howard lab. Milford's programs would remain at the James J. Howard lab at a scaled back level more appropriate to their relative priority.

Milford Laboratory Should Be Closed

The Milford laboratory should be closed and its programs transferred to the new James J. Howard Marine Sciences laboratory at Sandy Hook. The Milford lab conducts science programs in finfish and shellfish aquaculture and in evaluation of habitats for stock enhancement. These programs are relatively low priority compared to high priority fisheries management and endangered species research programs at other NMFS labs. The lab's research is isolated from the mainstream of the Center's and NMFS's activities. The species being studied at Milford are a near-shore resource that comes under state management and are not included under a federal fishery management plan.

The Milford facility is underutilized and the overall condition of its buildings is only fair. Given the current fiscal environment, NMFS should strive for the most efficient and effective use of its limited resources by concentrating on high priority research related to its federal mandated requirements and on streamlining its field structures. Maintaining the Milford lab and continuing its programs at current levels represents an inefficient use of agency funds.

Our analysis and site visits have identified the James J. Howard lab as a suitable host facility for Milford's programs and personnel. The lab contains a sophisticated seawater system with a modern suite of wet, dry, and analytical labs and is running under capacity. NMFS occupies roughly 75 percent of the James J. Howard lab through a lease agreement with the state of New Jersey. NMFS may occupy the remaining space at any time with only a small increase in operating costs. Our analysis of the space utilization and availability at both labs has shown that the James J. Howard lab has the necessary type and amount of space to absorb the Milford lab's programs and personnel at a scaled back level. The lab is already equipped to support some of the research being conducted by Milford, especially with tautogs and algae.

Our analysis has shown that benefits of approximately \$5,012,000 could be realized over a five-year period by closing the Milford facility. Our assumptions and analyses are detailed in Appendix B.

Recommendation

We recommend that the Milford laboratory be closed and its programs and personnel transferred to the new James J. Howard Marine Sciences laboratory at Sandy Hook.

Funds to Be Put to Better Use

By implementing our recommendation, NMFS could put approximately \$2.6 million of funds to better use. The \$2.6 million represents the net present value of benefits over costs for the two-years following implementation of our recommendation. The five-year cost/benefit analysis shows benefits totaling approximately \$5 million and can be found in Appendix B.

Agency Response

NOAA disagreed with our recommendation to close the Milford Laboratory and transfer its programs to the Howard Marine Laboratory at Sandy Hook. NOAA also disagreed with our estimate of a \$5 million net present value savings from closure and relocation of programs, because NOAA thought our calculations did not include the staffing costs for the programs to be transferred to the Howard lab.

NOAA also asserts that aquaculture, the area of research historically conducted at Milford, is no longer a lower priority among NMFS's missions, and that state, university, and Federal synergy is relatively high at Milford. Finally, NOAA asserts that it makes no sense to disrupt programs at Milford simply to take advantage of underutilized space at the Howard lab. NOAA proposes instead that new full-time equivalents (FTEs) be hired to fill the underutilized space.

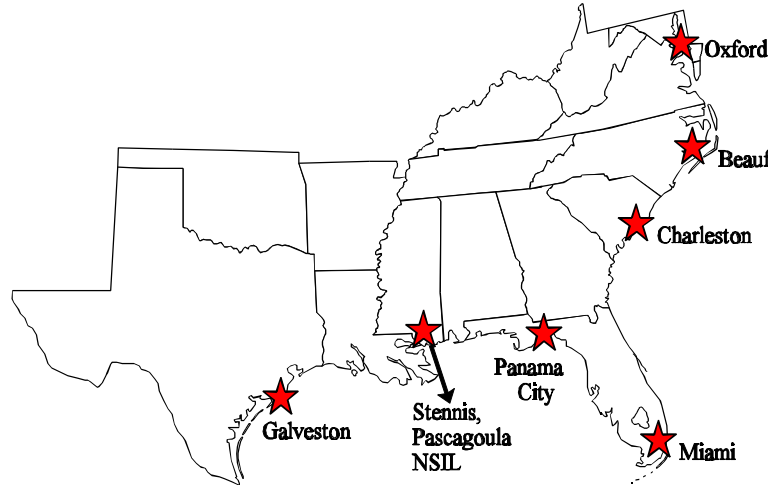
OIG Comments

NOAA apparently misinterpreted our calculations of the estimated savings of closing Milford and transferring programs, and associated personnel, to the Howard Lab. Our calculations included the assumption that personnel associated with on-going research at Milford would be transferred to Howard, possibly at a scaled back level to reflect both the facilities available at Howard and the relatively low priority of the research being conducted at Milford. Our net present value analysis included permanent change of station costs for transferring Milford personnel.

We have no reason to dispute NOAA's assertion that aquaculture is becoming a higher priority area of research. However, we note that as recently as NOAA's own Laboratory Consolidation Study (June 1996), Milford's programs, and aquaculture in general, were ranked as a relatively low priority by NMFS managers. If aquaculture is indeed becoming increasingly important, transfer of the Milford work to the state-of-the-art, but underutilized Howard facility is even more advisable. Synergy among state, university, and Federal facilities is irrelevant in this instance as both Milford and Howard were rated equal in this category by NOAA's Laboratory Consolidation Study. Finally, NOAA's assertion that personnel should be hired merely to fill underutilized space at Howard is unwise given the fiscal constraints on NMFS and the Department in general.

SOUTHEAST FISHERIES SCIENCE CENTER

The Southeast Center consists of eight laboratories located in Galveston, Texas; Bay St. Louis, Mississippi; Pascagoula, Mississippi; Panama City, Florida; Miami, Florida; Charleston, South Carolina; Beaufort, North Carolina; and Oxford, Maryland. Also located in the Southeast, but under the organizational authority of NMFS headquarters, is the National Seafood Inspection laboratory in Pascagoula. The Southeast Center directorate is colocated with the Miami



laboratory. The directorate oversees and plans Center research programs; coordinates Center fishery statistics activities, scientific staff support, and administrative support; and operates fishery logbook programs and the state/federal statistics program. The directorate also plans, oversees, and coordinates Center computer operations and information management tasks and operates the Miami facility's large computers.

The Galveston laboratory was established in 1950 on the site of the U.S. Army's deactivated Fort Crockett. NMFS shares the facilities with NOAA's Sea Grant program and Texas A&M University, with which it has a cooperative agreement. Galveston specializes in shrimp population dynamics; sea turtle biology and physiology; habitat conservation and enhancement; and the rearing, tagging and releasing of Kemp's Ridley sea turtles. The Galveston complex is currently undergoing a major renovation totaling approximately \$7 million.

Bay St. Louis and Pascagoula are the two main facilities known organizationally as the Mississippi laboratories. The Bay St. Louis lab is located in leased space at the John C. Stennis Space Center in Bay St. Louis. This lab concentrates on satellite remote sensing, data management, and engineering. Bay St. Louis also houses a CoastWatch node. The Pascagoula lab, established in 1950, focuses on resource surveys, harvesting systems/gear research to improve and support survey activities, by-catch issues, and latent resource harvesting/sampling techniques. Endangered and protected species research and surveys are also conducted. The NOAA vessels *R/V Chapman*, *R/V Oregon II*, and *R/V Caretta* are docked in Pascagoula, and the main facility is in fair condition.

Also located in Pascagoula and colocated with the Pascagoula lab is the NSIL. NSIL provides scientific credibility, oversight, risk analysis, and technical information support services to improve consumer protection in fisheries consumption by means other than direct inspection for the NMFS

National Seafood Inspection Program, other federal/state agencies, the seafood industry, and the general public.

The Panama City laboratory was established in 1966 to conduct research on marine recreational resources and their needs. Current species of primary interest are the coastal pelagics and reef fish. Research projects being conducted include studies on stock distribution, abundance, and migrations; stock identification; predator-prey relationships; age and growth studies; and early life history research. The lab is in poor condition.

The Miami laboratory, built in 1964, houses over 60 FTEs. Originally known as the Tropical Atlantic Biological Laboratory for research on tropical oceanography and tropical tuna fisheries, the Miami lab currently manages the Oceanic Pelagics, Reef Resource, and Protected Species programs for the Southeast Center. Emphasis is on population dynamics, fisheries biology, and population assessments for fish, marine mammals, and sea turtles. Research is coordinated with the University of Miami.

The Charleston laboratory is located at Fort Johnson on James Island, South Carolina. It was established in 1978 after being relocated from College Park, Maryland. The lab is surrounded by several cooperative agencies and universities. NOAA is leasing this facility from the State of South Carolina and several new construction projects are being planned, including renovations to the existing lab and the construction of a new facility to accommodate the lab's collaborators. Major research thrusts include marine biotechnology, marine biotoxin, marine ecotoxicology, and seafood safety research.

The Beaufort laboratory, established in 1899, is located on Pivers Island, North Carolina, adjacent to Duke University's marine laboratory. Beaufort houses the Southeast Regional CoastWatch node, thereby having access to and responsibility for disseminating near real-time data from satellites and other environmental sensors to federal, state, and academic institutions. Approximately 70 FTEs and numerous National Research Council post-doctoral fellows and other contractors are stationed at Beaufort. Major research efforts involve protected species, marine mammals, habitat research, and Atlantic coastal research.

The Beaufort lab recently acquired the Oxford laboratory as a field station from the Northeast Center. Oxford was established in 1960 to study oyster disease in the Chesapeake Bay. Slated for closure by NOAA, the Oxford lab was instead transferred to the Southeast Center and its programs are scheduled to be revitalized. Oxford is currently conducting marine disease research and has recently initiated a marine mammal and sea turtle stranding program. The lab is colocated with a Maryland state research laboratory.

After analyzing the condition, cost, and utilization of each of these facilities, as well as the various programs being conducted, we determined that consolidations of several labs would increase NMFS's overall efficiency and effectiveness. We recommend that the NSIL be closed and the associated personnel be released from service. We further recommend that the Bay St. Louis and Panama City facilities be vacated and the programs and personnel moved into space at the Pascagoula facility previously occupied by NSIL. Finally, we recommend that the Oxford lab be

transferred to the state of Maryland. Programs that are not transferred to the state should be phased-out, outsourced, or continued at the Beaufort lab. Our assumptions and analyses are detailed in Appendix C.

National Seafood Inspection Laboratory Should Be Closed

NSIL should be closed, its programs terminated, and the associated personnel released from service. The NSIL is conducting low priority research. Furthermore, several commercial laboratories are currently performing the same kinds of analyses as NSIL does. Given the current fiscal environment, NMFS should strive for the most efficient and effective use of its limited resources by concentrating on high priority research related to its federal mandated requirements and on streamlining its field structures. OMB Circular A-76 directs that the government should not compete with the private sector. Continuing the NSIL programs is not only an inefficient use of agency funds, but it also undermines our nation's competitive enterprise system.

NSIL has provided scientific oversight of the NMFS inspection program. In 1996, NSIL performed 4,227 analytical tests for heavy metals, bacteriological pathogens such as *Listeria*, *Salmonella*, and *Staphylococcus*, and other contaminants, toxins and pathogens. While some of samples to be tested came from the NMFS inspection service, more than half of the tests were self-initiated by NSIL. The number of externally generated sample testing will decrease significantly because, after December 1997, processors will be required to implement the Hazards Analysis Critical Control Point (HACCP) method of seafood processing and safety. Because HACCP will require processors to document and implement internal controls over processing steps, there will be less testing of samples. Also the NMFS inspection service is converting to a quasi-commercial organization that will not be required to use NSIL for analytical testing. During our field work, we identified several commercial labs that are capable of performing similar analytical tests of seafood for the inspection service and seafood processors.

During 1996, NSIL reviewed 20 HACCP plans for processors. However, the need for NSIL to continue this HACCP plan review service is expected to decrease in the future as the inspection service acquires expertise in HACCP plan implementation. There are numerous commercial, educational, and other organizations that are capable of providing HACCP expertise and training.

Other work being conducted by NSIL includes product or process risk evaluation, new analytical method evaluation, and fish meal inspection. These remaining functions are not sufficient to justify keeping the lab open. Any projects in process that are deemed critical could be continued at the Northwest Center's Montlake lab or the Southeast Center's Charleston lab, both of which have seafood science programs and the requisite science staff and infrastructure to carry out such research.

OMB Circular A-76 specifies that government shall not engage in commercial activities if "...the product or service can be procured more economically from a commercial source." The circular also lists examples of commercial activities, one of which is laboratory testing services. Government performance of commercial activities is allowed only if no satisfactory commercial source is available because of the source's lack of capability or because usage of the source would create unacceptable

delay/disruption of an *essential* project. This is clearly not the case with NSIL, as it is not an essential project within NOAA and several commercial sources of its products are available at reasonable costs.

NSIL is currently occupying space at NMFS's Pascagoula facility and in nearby leased space. Closing NSIL will involve terminating the positions associated with the lab and eliminating its functions. This will also open up space at the Pascagoula lab for other consolidation efforts. We estimate that closing NSIL will yield approximately \$2,565,000 in benefits over a five year period. Our analysis is detailed in Appendix C.

Bay St. Louis Laboratory Programs Should Be Moved

The Bay St. Louis laboratory should be moved from its current location at the Stennis Space Center in Bay St. Louis, to space at the Pascagoula facility previously occupied by NSIL. According to our analysis, the programs at Stennis can be cost-effectively moved once NSIL closes. Given the current fiscal environment, NMFS should strive toward a more cost-effective, streamlined field structure. Failure to do so would represent an inefficient use of agency resources.

NMFS is currently leasing space at the Stennis Space Center generally to conduct research in support of the survey work at Pascagoula. The Bay St. Louis lab is conducting relatively high priority work. Our closure/consolidation criteria, detailed in Appendix G, stipulate that high priority research should be continued. However, because the Bay St. Louis programs are not site-specific, they could be moved if an adequate host facility exists.

Once NSIL is closed, the Pascagoula facility will have sufficient space to absorb the Bay St. Louis programs. Our cost-benefit analysis revealed that the move is cost-beneficial, as about \$257,000 in benefits would be realized over a five-year period. Our analysis is detailed in Appendix C.

Panama City Laboratory Programs Should Be Moved

The Panama City laboratory should be closed and its programs moved to space at the Pascagoula facility previously occupied by NSIL. According to our analysis, the program at Panama City can be cost-effectively moved once NSIL closes.

Combining the Pascagoula and Panama City labs could benefit NMFS research for a number of reasons. Only 10 FTEs are stationed at Panama City. Consolidating the Panama City staff with the Pascagoula staff will increase the amount of research effort available to address research questions in the Gulf of Mexico. The consolidation of personnel will build on the established collaborative nature of the ongoing research programs. Also, relocating the Panama City personnel will provide them closer access to a number of similar research organizations such as the University of Southern Mississippi. The work being conducted at Panama City is high priority, so it should not be discontinued. However, Panama City's research is not site-specific; therefore, it could be moved if an adequate host facility exists.

Once NSIL is closed, the Pascagoula facility will have sufficient space to absorb the Panama City programs. Our cost benefit analysis shows that approximately \$1,609,000 in benefits could be realized over a five-year period from implementing this recommendation. Our analysis is detailed in Appendix C.

Oxford Laboratory Should Be Transferred

The Oxford facility and most of its programmatic research should be transferred to the State of Maryland. Any remaining NMFS responsibilities should be transferred to NMFS's Beaufort lab.

The Oxford lab is currently colocated with Maryland's Department of Natural Resources research staff. The State of Maryland has expressed an interest in acquiring this facility, and in the past, NMFS has conceded that the bulk of their current research could and should be transferred to the state. Recently, NOAA has decided to increase program responsibilities at Oxford to include Habitat research, but work in this area is not yet underway. The lab is also now participating in the Marine Mammal and Sea Turtle Stranding Network, which requires minimal effort. Nonetheless, the work conducted by NMFS at Oxford is low priority and should be conducted by other agencies.

Therefore, we recommend that NMFS initiate action to transfer the bulk of its programmatic responsibilities to the state of Maryland. Programs that are not transferred could be phased out, outsourced, or continued at the Beaufort lab. We estimate that, if all programs are eventually discontinued and personnel are transferred to existing space at Beaufort, NMFS will realize net benefits of approximately \$2,379,000 over a five-year period. Our analysis is detailed in Appendix C.

Recommendations

We recommend that:

- ! The National Seafood Inspection Laboratory in Pascagoula be closed, its programs terminated, and the associated personnel released from service.
- ! The Bay St. Louis laboratory be closed and the programs and personnel be moved from its current location at the Stennis Space Center to space at the Pascagoula facility previously occupied by NSIL.
- ! The Panama City laboratory be closed and the programs and personnel be moved from its current location to space at the Pascagoula facility previously occupied by NSIL.
- ! The Oxford laboratory and most of its programmatic responsibilities be transferred to the State of Maryland. Any remaining NMFS responsibilities should be transferred to the Beaufort lab.

Funds to Be Put to Better Use

By implementing our recommendations, NMFS could put approximately \$3.4 million of funds to better use. The \$3.4 million represents the net present value of benefits over costs for the two years following implementation of our recommendations. The five-year cost/benefit analysis shows benefits totaling \$6.8 million (summarized below) and can be found in Appendix C.

Recommendations:	Net present value of benefits over two years	Net present value of benefits over five years
Close the National Seafood Inspection Laboratory.	\$ 884,000	\$2,565,000
Close the Bay St. Louis lab and move programs to the Pascagoula lab.	(149,000)	257,000
Close the Panama City lab and move programs to the Pascagoula lab.	1,092,000	1,609,000
Transfer the Oxford lab	1,601,000	2,379,000
Total	\$3,428,000	\$6,810,000

Agency Response

National Seafood Inspection Laboratory

NOAA disagrees with our recommendation to close the NSIL. NOAA does agree that activities conducted by NSIL should be discontinued. NOAA claims that since our audit, NMFS has moved to change NSIL’s program focus from seafood inspection program support and oversight. NOAA believes that NSIL should continue to represent NOAA in food safety forums and support NMFS’s continued role relating to food safety.

OIG Comments

National Seafood Inspection Laboratory

Given that the NMFS seafood inspection program is moving to become a performance based organization under the Food and Drug Administration within the Department of Health and Human Services, there simply is no longer a viable reason for NMFS to continue operating NSIL. NOAA’s assertion that NSIL needs to continue to exist to represent NMFS in food safety forums or to somehow support NMFS’s fishery management mission is insufficient justification for keeping a facility open that no longer has a viable mission.

Agency Response

Bay St. Louis Lab

NOAA also disagrees with our recommendation that the programs at the Bay St. Louis laboratory should be moved to the Pascagoula facility previously occupied by NSIL. NOAA asserts that there is great value in having the eight NMFS FTEs at the Bay St. Louis facility (located at NASA's Stennis Space Center) to facilitate the exchange and transfer of technology to other resident agencies.

OIG Comments

Bay St. Louis Lab

NOAA's Laboratory Consolidation Study of June 1996 recommended that NMFS withdraw from the federal agency complex at the Stennis Space Center. The study noted that NMFS is a small tenant at the Stennis Center, and that the Bay St. Louis programs could be relocated to Galveston and Pascagoula. NOAA's Consolidation Study Update of June 1997 reconfirmed that NMFS should cease participation in the multi-agency complex at Stennis and relocate the personnel and programs to Pascagoula.

Agency Response

Panama City Lab

NOAA agreed that the programs currently conducted at the Panama City lab could be relocated, that income could be generated from the sale of the property, and that savings would be realized. However, NOAA disagreed with our estimate of the potential savings because NOAA thought our analysis had not considered the need to backfill vacated positions resulting from the transfer. NOAA also disagreed with relocating Panama City programs to Pascagoula and suggested instead that the programs be moved to the Galveston lab.

OIG Comments

Panama City Lab

NOAA apparently misread our net present value cost/benefit analysis. Our analysis of the Panama City lab, and all other facilities conducting high priority research, included the assumption that any position vacancies resulting from the transfer would be backfilled at the new site. As to moving Panama City programs to Galveston rather than Pascagoula, we recommended that the programs move to Pascagoula because various projects at Panama City are already coordinated with researchers at Pascagoula. Consolidating the two groups at a single site seems to be the most logical, effective, and cost efficient approach.

Agency Response

Oxford Lab

NOAA suggested that our draft report text was unclear as to the content of our recommendations. NOAA interpreted our recommendations to be that the Oxford facility be closed, a position with which NOAA disagreed.

OIG Comments

Oxford Lab

In response to NOAA's comments, we revised the text of our final report to more clearly indicate our recommendations regarding the Oxford lab.

ALASKA FISHERIES SCIENCE CENTER

The Alaska Center is responsible for NMFS research in the marine waters and rivers of Alaska and part of the west coast of the United States. Alaska Center scientists estimate the size and value of the commercial fishery resources and advise fishery managers of changes in stock abundance.

Specialists at the Center compile and analyze broad databases on fishery, oceanography, marine mammal, and environmental research to provide a sound technical basis for developing policies and strategies for fisheries management within the EEZ. The four research facilities associated with the Alaska Center are located in Seattle (Sand Point); and in Auke Bay, Little Port Walter, and Kodiak, Alaska. NOAA is also designing a new facility to be built in Auke Cape, Alaska.



The Sand Point facility houses three Alaska Center divisions: (1) the Resource Assessment and Conservation Engineering (RACE) division, (2) the Resource Ecology and Fisheries Management (REFM) division, and (3) the National Marine Mammal Laboratory (NMML). The Center directorate is collocated at Sand Point, and the facility is also shared with NOAA's Western Regional Center and other NOAA entities. Sand Point is NOAA-owned and in good condition.

The RACE division conducts resource assessment surveys to gather information on the abundance of harvestable fish and crab stocks within the EEC off the coast of the Western Continental United States and Alaska. The REFM division studies the life history, trophic interactions, population dynamics, and harvest of the region's marine resources. The NMML is the principal federal lab responsible for conducting research on marine mammals and their interaction with fisheries. NMML staff carry out ecosystem programs in the Arctic and Antarctic, as well as the Bering Sea.

The Auke Bay laboratory, constructed in 1959, includes a subport facility in Juneau for warehouse, storage, and docking purposes. Auke Bay staff conduct research to support international treaty negotiations concerning interceptions of U.S. salmon. They also examine ways to enhance depressed salmon stocks, provide information on the status of groundfish fisheries in the eastern Gulf of Alaska, and investigate the impact of industrial development on fish and shellfish production in Alaska. The current lab complex is overcrowded and in marginal condition.

Associated with the Auke Bay lab is the Little Port Walter field station. The first temporary field facility at Little Port Walter was established in 1932 for salmon research. Research at Little Port

Walter currently focuses on Chinook Salmon, Steelhead, and oiled Pink Salmon. Efforts are also being made to count the number and size of the fish returning to Sashin Creek as part of the Ocean Carrying Capacity research program. The Alaska Department of Fish and Game and the University of Alaska are included in cooperative research efforts.

Two facilities make up what is known as the Kodiak laboratory: one in Gibson Cove and one at a nearby U.S. Coast Guard station. The Gibson Cove facility is used primarily by the NMFS Observer program and is in acceptable condition. However, the NMFS-occupied space at the Coast Guard facility is in poor condition and is unsatisfactory for NMFS's research needs. Ground breaking ceremonies were recently held for a new facility on Near Island to replace the dilapidated Coast Guard station facility. This new facility is being funded by the Kodiak Borough. RACE, REFM, and NMML all have programs that use the Kodiak facilities.

Along with the new construction in Kodiak, NMFS is planning to construct a new facility in Auke Cape to replace the deteriorating Auke Bay lab. The new facility will also house local NMFS Regional Office, Enforcement, and General Counsel staff. The University of Alaska plans to construct its own building adjacent to the NMFS facility. Current project cost estimates for the new facility total about \$71 million, and project completion is expected around the year 2000.

We visited the Sand Point, Auke Bay, and Little Port Walter facilities during our audit. We spoke with appropriate lab personnel, collaborators, and customers. Our detailed analysis of all the Alaska Center facilities and of the programs being conducted at these facilities confirmed that the current Center structure is adequate for NMFS's needs. We recommend no changes at this time.

During our analysis, however, we reviewed the status of the Auke Cape project in detail. In 1994, we conducted an audit of NOAA's proposal to construct a new facility at Auke Cape (STL-5507-4-0001). At that time, we found that NOAA's space and cost estimates for the new facility were flawed. Upon reviewing the current Auke Cape space and cost estimates, we found that space assessments were still inflated and that cost estimates had nearly doubled.

We also addressed the possibility of relocating Alaska Science Center personnel at Sand Point to the proposed Auke Cape facility. Our review of programs and facilities found no logistical advantage to moving Sand Point programs to Auke Cape. Our space analysis showed that there is not sufficient planned space at Auke Cape to accommodate Sand Point programs. Finally, our cost/benefit analysis concluded that the costs associated with moving Sand Point personnel to Auke Cape are in excess of \$20 million. Therefore, we are making no further recommendations at this time. Our conclusions are documented in Appendix D.

NORTHWEST FISHERIES SCIENCE CENTER

The Northwest Center was originally established as the Alaska and Northwest Regional Center in 1938 by NOAA's predecessor, the Bureau of Commercial Fisheries. In 1990, this entity was split into the Northwest and Alaska Centers. The current Northwest Center consists of six main research facilities: Montlake, Manchester, Mukilteo, and Pasco, Washington; and Pt. Adams and Newport, Oregon. The Center is responsible for providing scientific and technical support for the management, conservation, and development of the anadromous and marine fishery resources of the Pacific Northwest. Research conducted by the staff falls into three categories: health and conservation of salmon stocks, habitat assessment and restoration, and seafood safety and quality.



The Montlake laboratory was built in 1931 and houses three divisions: Coastal Zone and Estuarine Studies, Environmental Conservation, and Utilization Research. Montlake is also headquarters for the Northwest Center directorate. All work done throughout the Center is managed by division directors at Montlake, regardless of where the research is conducted. The Montlake facility's proximity to the University of Washington allows valuable interchange between scientists as well as easy access to the university's library and research facilities.

Manchester was established in 1968 on the site of a former Navy firefighting school. The activities at Manchester are part of the Coastal Zone and Estuarine Studies division but with much of the work funded by other agencies, especially the Bonneville Power Administration. The facility is in good condition. Major areas of research include salmon physiology, health, and stock restoration. Construction was recently completed on a new saltwater lab and seawater pumping system, and Bonneville has funded a new building to maintain the lab's chinook captive brood stock. A new facility containing two large flumes to conduct behavioral studies was also just completed.

The Mukilteo laboratory was established in 1970 to conduct work for the Environmental Conservation division. The facility is leased from the U.S. Air Force rent free and provides running seawater facilities for the staff at Montlake. The facility is in fair condition.

The Pasco facility, located at the confluence of the Snake and Columbia Rivers, addresses environmental changes in the Columbia River system caused by the construction of dams and other water resource developments. The current facility was established in 1965. The Pasco facility is in excellent condition and is specifically designed to support current research activities.

The Newport laboratory was established in 1979 as part of the Hatfield Marine Science Center to promote the development, rehabilitation, and enhancement of Oregon coastal fish and mollusks. Oregon State University researchers are colocated with NMFS staff under a cooperative

agreement. A large portion of the facility is devoted to Alaska Science Center research on fish behavior as it relates to by-catch. Also conducted at Newport are groundfish research and salmon disease research. The Newport facility is in excellent condition, but approximately \$3.5 million has been appropriated to NMFS to remodel existing space and construct additional space for both NOAA and Oregon State University.

The Pt. Adams field station was established in 1969. Research at the station is focused on developing environmental information to support the conservation and enhancement of fishery resources and their habitats in the lower Columbia River, its estuary, and the near shore ocean off Oregon and Washington. The buildings are in good condition, and the space is currently underutilized. Nearly all studies in the lower Columbia River are cooperative efforts with the Corps of Engineers or the Bonneville Power Administration.

We visited Montlake, Manchester, Newport, and Pt. Adams, conducting interviews with appropriate lab personnel, collaborators, and customers. Our detailed analysis of all the Northwest Center facilities and of the programs being conducted there confirmed that the current Center structure is adequate for NMFS's needs. We recommend no changes at this time.

We did, however, consider moving the Montlake programs to the Alaska Science Center's Sand Point facility. This would have been in conjunction with the potential recommendation (detailed previously in the "Alaska Fisheries Science Center" section) to relocate that Center's personnel at Sand Point to the proposed Auke Cape facility upon completion.

We found that the Sand Point facility does not have the specialized lab space and fresh water systems required by the Montlake programs. Renovating the Sand Point facility to accommodate these programs would be costly and inefficient given that the required space and systems already exist at Montlake. In addition, as outlined above, because we do not recommend moving any Alaska Center programs out of Sand Point, it would not have adequate space to absorb the Montlake programs. No other facilities in the general area could accommodate the large number of personnel associated with the Montlake programs. As a result, we do not recommend moving the Montlake programs. Our conclusions are documented in Appendix E.

Agency Response

NOAA disagreed with our recommendations that no changes be made in the current organizational structure of the Alaska and Northwest Centers. NOAA noted that the anticipated disposition of programs currently at the Alaska Center was addressed in the June 1997 update of the NOAA Laboratory Consolidation Report. NOAA asserts there are benefits to the actions proposed which outweigh the high costs. NOAA also asserts that there is merit in relocating programs and personnel from Montlake to Sand Point if much of the Alaska center is relocated to Auke Bay.

OIG Comments

We carefully considered NOAA's response on this section of our report because the options being considered would have major programmatic and budgetary impact. We noted that the June 1997 Laboratory Consolidation Study update referenced in the NOAA response proposes relocating all current programs except the Marine Mammal Program, from the Sand Point facility, yet any benefits accruing to these proposed relocations were not obvious in either the June 1997 update or the NOAA response.

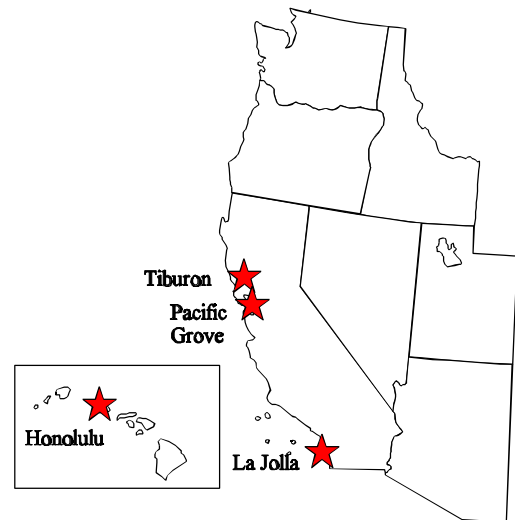
As noted, our analysis found that there are no logistical advantages in moving Sand Point programs to Auke Cape, that there is insufficient planned space at Auke Cape to accommodate the programs, and that costs associated with the proposed move are high. The proposal currently being offered by NOAA would only worsen the situation by adding to already prohibitive moving costs and by requiring a redesign and additional space at the proposed Auke Cape facility.

Similarly, we continue to have doubts regarding the proposed move of Montlake programs to Sand Point. The Sand Point facility lacks the specialized lab space and water systems required by the Montlake programs. Renovating Sand Point to duplicate these systems which already exist a few miles away is wasteful. NOAA recognized this problem in its Laboratory Consolidation Report by noting that a property transfer of the Montlake facility would have to include a provision permitting continued access to the critical laboratories at Montlake.

In summary, we reconfirm our initial conclusions, that the current organizational structures of the Alaska and Northwest centers are appropriate.

SOUTHWEST FISHERIES SCIENCE CENTER

The Southwest Center is comprised of four major facilities located in La Jolla, Pacific Grove, and Tiburon, California; and Honolulu, Hawaii. The Southwest Center's mission is to describe feasible management options for Pacific coastal, insular, and pelagic fisheries for worldwide tuna fisheries, along with the protected species associated with these fisheries. The Center also provides estimates of the biological, environmental, economic, and social impacts of these options. The Center directorate is colocated with the La Jolla laboratory.



The La Jolla laboratory was built in 1964 to conduct research on the California Current and tuna resources.

The lab is currently working on protected species, Antarctic ecosystems, west coast groundfish, genetics, coastal fisheries, and large pelagics. The facility is located on 2.48 acres 220 feet above sea level on a sandstone cliff. Approximately 100 NMFS FTEs are located at La Jolla, and 35 people from the Inter-American Tropical Tuna Commission are tenants at the facility. Research is conducted using the *R/V David Starr Jordan*, berthed in San Diego.

The Pacific Fisheries Environmental Group was recently relocated to a deactivated U.S. Naval Reserve Center in Pacific Grove. The facility was officially transferred to NOAA in 1996. A small amount of space in the facility is occupied by the NMFS's enforcement program and the Monterey Bay National Marine Sanctuary. However, most lab interaction is with the Fleet Numerical Meteorology and Oceanography Center, located in nearby Monterey. The Pacific Fisheries Environmental Group relies heavily on environmental data collected by Fleet Numerical Meteorology and Oceanography Center to study how the environment influences marine resources.

The Tiburon laboratory was established in 1961 to conduct research on recreational fisheries and San Francisco Bay concerns. The lab now focuses its work in the groundfish community and fishery off coastal California. Because of the poor condition of the lab facilities, NMFS currently plans to move the programs and personnel to a facility to be constructed in Santa Cruz, California.

Researchers at the Honolulu laboratory study high seas, open ocean, and tropical island fisheries resources from the northwestern Hawaiian Islands to the Mariana Archipelago. The main lab adjoins the campus of the University of Hawaii, and the Kewalo Research Facility is situated on the Honolulu waterfront. The lab is overcrowded and is in poor condition. However, a study is underway to analyze various options to reconcile this situation, and NMFS managers expect that action will be taken soon.

NMFS is defining space needs for the new facility to be constructed in Santa Cruz, to which it plans to move the Tiburon research programs. NMFS regional staff currently leasing space in Santa Rosa, California, are also planning to occupy space at Santa Cruz.

We visited the La Jolla and Pacific Grove facilities and spoke with lab directors, program managers, and other parties. We conducted a phone interview with the Tiburon director, and the Southwest Center director spoke to us regarding the Honolulu lab's programs and facility plans. After considering the options available in the Southwest, we determined that for safety reasons, the La Jolla and Tiburon facilities should be closed and their programs transferred to other NMFS facilities.

La Jolla Facility Should Be Vacated

The Southwest Center's La Jolla facility presents potentially serious risk to the laboratory staff and the public. The facility was built on a landslide, and evidence indicates that the Rose Canyon fault may run directly beneath the lab. Furthermore, the facility is located on a sandstone cliff, which is eroding in an unpredictable, sporadic way. For the safety of the lab's researchers and the public, we recommend that the La Jolla facility be vacated and staff be moved to other NMFS facilities.

We interviewed a number of geologic experts from the Scripps Institute of Oceanography, the City of San Diego, and the private sector. We reviewed a number of reports and studies of the geologic features underlying the NMFS buildings. Four significant points can be drawn from our work:

- ! Wave action and storms continue to erode the cliff, and the buildings now have inadequate setback from the cliff edge.
- ! The lab was built on an existing landslide, and an earthquake could trigger cliff failure.
- ! The Rose Canyon fault may run directly underneath the lab.
- ! The beach beneath the lab is a popular area for the public to visit, and posting of signs to warn the public of the serious danger have not been successful in limiting use of the beach.

Although the science programs are high priority and NMFS benefits from collocation with the Scripps Institute, the facility itself presents potentially serious risk to the lab staff and the public. Given this situation, and considering that none of the programs at La Jolla are site-specific, we recommend that the La Jolla facility be vacated and that staff and programs be moved to other NMFS facilities. Two of the six La Jolla programs (Coastal Fisheries and West Coast Groundfish) should be moved into space at the Northwest Center's Newport, Oregon, facility; while the Genetics and Protected Species programs, along with the Center directorate, should be transferred to the planned Santa Cruz facility upon its completion. The remaining two La Jolla programs (Large

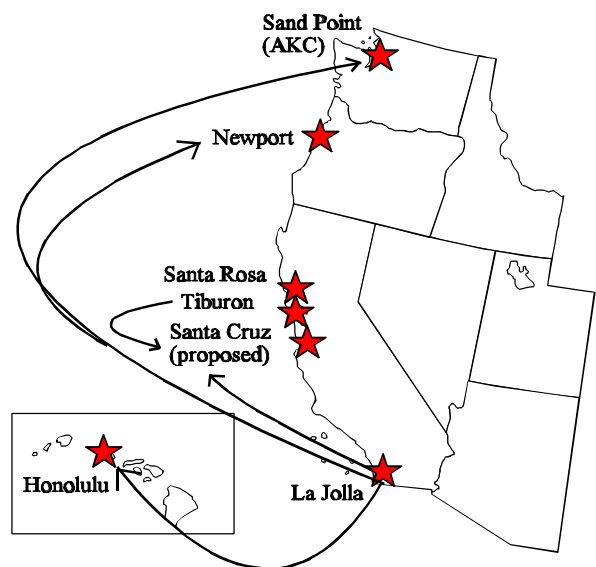
Pelagics and Antarctic Research) should be transferred to the Honolulu lab and the Alaska Center at Sand Point, respectively.

Coastal Fisheries and West Coast Groundfish should be transferred to the lab complex in Newport. Several entities occupy space at this complex, including the Environmental Protection Agency (EPA), Oregon State University, and NMFS. NOAA currently plans to remodel existing space and construct additional space for both the University and NOAA. NOAA’s prefinal space assessment indicated that planned renovations included significant space allotments for currently unauthorized program expansions. Furthermore, one of the buildings currently occupied by EPA has vacant space, which EPA has expressed interest in sharing with NMFS. Given this, we recommend that planned renovations and construction currently designated for unauthorized program expansions instead be designated to accommodate La Jolla’s Coastal Fisheries and West Coast Groundfish programs.

The Antarctic program should be transferred to the Alaska Center and programmatically combined with that Center’s Polar program. The Antarctic program is not site-specific, and the Polar program conducts complementary work. There is also space available at Sand Point to absorb the personnel and equipment associated with the Antarctic program. It is more cost effective to move the Antarctic program to Sand Point than to construct extra space to accommodate the program at Santa Cruz.

The Large Pelagics program should be moved to the Honolulu lab. Honolulu has a similar program, and researchers in the two programs already have significant interactions. Furthermore, NMFS is preparing to renovate existing space at Honolulu and transfer approximately 14 regional office personnel from Long Beach to the renovated Honolulu lab. We recommend that this transfer not take place and that, instead, personnel and equipment associated with La Jolla’s Large Pelagics program move into renovated space in Honolulu.

OIG RECOMMENDATION:



Genetics, Protected Species, and the Center directorate should be transferred to the planned Santa Cruz facility upon its completion. NMFS currently plans to move programs and staff from Tiburon and Santa Rosa into this planned facility. Our review led us to agree with NMFS’s decision to move the Tiburon lab to Santa Cruz. However, to increase the amount of office space available for the incoming La Jolla programs, we believe the Santa Rosa staff should remain in their current leased space. The Genetics and Protected Species programs still require a small amount of lab space; therefore, we recommend that the planned Santa Cruz facility be expanded to accommodate all Tiburon programs, the two La Jolla programs, and the Center directorate.

We estimated that to provide for the space needs of the La Jolla programs to be moved to Santa Cruz, approximately 33,895 gross square feet of additional space needs to be constructed at Santa Cruz, which would cost approximately \$17,324,000. The net present value over a five-year period of costs associated with expanding construction efforts at Santa Cruz and transferring La Jolla personnel and equipment to Santa Cruz, Sand Point, Newport, and Honolulu equals approximately \$19,956,000. These costs are in addition to original NMFS Santa Cruz cost estimates.

Although this represents a large initial outlay for NMFS, the safety of the researchers who now work in unstable and possibly life threatening conditions is an overriding factor. Furthermore, it is more cost-beneficial for NMFS to relocate La Jolla staff now under this plan than to postpone action. NMFS currently plans to maintain the status quo with regards to the La Jolla facility. However, several geologic experts have maintained that it is only a matter of time before the cliff fails. If NMFS fails to adequately plan ahead now, emergency conditions will likely force it into making costly, inadequately planned facility decisions later.

Assume, for example, that NMFS does maintain the status quo at La Jolla. Also assume that within five years, the La Jolla coastline degrades to a point where the facility becomes unoccupiable. The cost of building a replacement facility in San Diego for the entire La Jolla staff would be approximately \$33,486,000. This figure does not include costs that might be associated with leasing temporary space and temporarily moving equipment should NMFS be forced to evacuate the La Jolla facility before a replacement facility is built. Our recommendation will cost approximately \$19,956,000. By planning ahead to occupy the Santa Cruz facility, NMFS can potentially save approximately \$13,530,000. Our assumptions and analyses are detailed in Appendix F, and a geologic perspective of the La Jolla site is included as Appendix H.

Recommendations

We recommend that the La Jolla facility be vacated and the programs and personnel be moved to the new lab planned for Santa Cruz, California, and existing labs in Honolulu, Newport, and Seattle (Sand Point).

We also recommend that NMFS include the recommended transfer of programs and personnel in the design process for the new Santa Cruz lab, and in the design process for major renovations for the Honolulu and Newport labs.

Funds to Be Put to Better Use

While implementation of this recommendation has a high potential of avoiding future costs for a replacement building, NOAA has no immediate plans to replace the existing building. Therefore, we have not included an amount for funds to be put to better use. However, as detailed in Appendix F, by planning ahead for alternative facilities before a crisis arises for replacing the La Jolla building, NOAA could avoid approximately \$13.5 million in additional construction costs.

Agency Response

LaJolla

NOAA agreed with our recommendations to vacate the LaJolla facility and relocate the programs and staff to other NMFS facilities with two exceptions: (1) relocating the Antarctic program to Sand Point, and (2) leaving the Santa Rosa staff in their current leased space.

NOAA notes the Antarctic activity can be outsourced, and suggests that doing so might provide sufficient space at Santa Cruz to accommodate relocated staff from Santa Rosa.

Tiburon

NOAA agreed with our recommendation to close the Tiburon facility and relocate the programs to the new facility at Santa Cruz.

OIG Comments

We agree that outsourcing the Antarctic activities is feasible and might be more cost effective than relocating the Antarctic personnel to Sand Point. This would not, however, provide additional space at Santa Cruz to accommodate the Santa Rosa staff, as it was not anticipated that Antarctic staff would relocate to Santa Cruz. Our analysis indicated it would be more cost effective to move Antarctic staff to Sand Point than to construct additional space for the program at Santa Cruz.

NOAA should carefully evaluate the benefits of moving the Santa Rosa staff to the new Santa Cruz facility, and if such a proposal is adopted, should consider the necessary space requirements in the Santa Cruz design.

LIST OF NMFS RESEARCH FACILITIES

Northeast Fisheries Science Center:

Woods Hole, MA
Narragansett, RI
Milford, CT
Sandy Hook, NJ (James J. Howard Lab)
National Systematics Lab in Washington D.C.

Southeast Fisheries Science Center:

Galveston, TX
Bay St. Louis, MS
Pascagoula, MS
Panama City, FL
Miami, FL
Charleston, SC
Beaufort, NC
Oxford, MD

**National Seafood
Inspection Lab:**

Pascagoula, MS

Alaska Fisheries Science Center:

Seattle, WA (Sand Point)
Auke Bay, AK
Little Port Walter, AK
Kodiak, AK

Northwest Fisheries Science Center:

Seattle, WA (Montlake)
Manchester, WA
Mukilteo, WA
Pasco, WA
Pt. Adams, OR
Newport, OR

Southwest Fisheries Science Center:

Honolulu, HI
La Jolla, CA
Pacific Grove, CA
Tiburon, CA

NORTHEAST FISHERIES SCIENCE CENTER ANALYSIS

We toured each of the Northeast Center facilities except the National Systematics Lab, spoke with people in each major program area, and interviewed collaborators and customers as appropriate. After considering the options available in the Northeast, we determined that a more efficient use of NMFS resources would be achieved by closing the Milford lab and relocating its programs to the James J. Howard lab. Programs would remain there at a scaled back level more appropriate to their relative priority. Our rationales for recommending closing certain labs and having others stay open are presented below:

We did not recommend closing the Woods Hole lab because it is conducting all high priority programs. We did not consider moving it because it has a staff (181 FTEs in FY 1994) large enough to make moving the facility prohibitive. Furthermore, it has established collaborative efforts with other entities that would have been jeopardized by a move.

We did not recommend closing the Narragansett lab because it too is conducting all high priority programs. We did not consider moving it because it has important cooperative relationships with the University of Rhode Island and the local EPA lab that we believe would be jeopardized by a move. Its research is also highly dependent on the unique quality of its seawater system.

We did not recommend closing the National Systematics Lab because it is conducting only high priority research. Although the research is not necessarily site specific, we did not consider moving it for two reasons: (1) its proximity to the colocated Smithsonian Natural History Museum's collections and library is helpful, and (2) lab space is provided at no cost to NMFS.

The Milford lab is a strong candidate for closure. NOAA managers identified the Milford programs as low priority, and none of the species being researched are covered under a federal fishery management plan. Furthermore, the condition of the buildings is only fair, and the facility is running under capacity. Finally, the lab's research is isolated from the mainstream of the Center's and NMFS's activities.

Although two out of the three programs at the James J. Howard lab are lower priority, we did not consider closing it or moving it because the state-of-the-art facility is an asset to NMFS. Furthermore, our analysis and visits have identified James J. Howard as a suitable host facility for Milford's programs and personnel. The lab contains a sophisticated seawater system with a modern suite of wet, dry, and analytical labs and is running under capacity. NMFS occupies roughly 75 percent of the lab through a lease agreement with the state of New Jersey. NMFS may occupy more of the facility at any time with only a small increase in operating costs. Our analysis of the space utilization and availability at both labs has shown that the James J. Howard lab has the adequate type and amount of space to absorb the Milford lab's programs and personnel at a scaled back level. The lab is already configured to support some of the research being conducted by Milford, especially with tautogs and algae.

We also conducted a cost/benefit analysis of closing Milford and moving its programs at a scaled-back level to James J. Howard. This analysis showed that benefits of approximately \$3,985,000 could be realized over a five year period by closing the Milford facility. We conducted our cost/benefit analysis in accordance with OMB Circular A-94, *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs*. The first step in developing a cost/benefit analysis is to identify the benefits or savings and then subtract the associated costs during the relevant time periods. The next step is to discount the net benefits over the duration of the analysis, which in this case is five years. The five year number is an arbitrary choice used to illustrate the savings that would occur over such a period.

SECTION I: OVERALL ASSUMPTIONS

We made several assumptions in conducting our analysis. Most assumptions we utilized are similar to those used in prior NMFS consolidation studies. Some assumptions have been modified, such as the amount of PCS cost and severance pay for affected personnel, to better reflect changed conditions.

- A) Administrative Personnel
 - 1) All those eligible for full or early retirement will take it.
 - 2) All others will be RIFed and receive severance pay.
 - 3) Only twenty-five percent of Milford's total administrative personnel will be re-hired at James J. Howard.
- B) Programmatic Personnel
 - 1) All those eligible for full retirement will take it.
 - 2) Fifty percent of those eligible for early retirement will take it; the other fifty percent will transfer.
 - 3) Seventy-five percent of those not eligible for full or early retirement will transfer; the other twenty-five percent will choose not to transfer and will receive severance pay. These positions will not be refilled.
 - 4) None of those who take full or early retirement will be re-hired because Milford conducts only low priority research that should at least be scaled back.
 - 5) The savings from not replacing those who retire will be calculated by multiplying the average salaries of those eligible for retirement by the number of people eligible for retirement.
- C) Average Unemployment Compensation = \$11,000 per person. We consider this to be a high estimate that could apply in any regional analysis.
- D) Average Permanent Change of Station (PCS) Costs = \$54,180 per person. We consider this to be a high estimate that could apply in any regional analysis.
- E) "Opportunity costs" represent disruption and move support costs and equal ten percent of the total programmatic value prior to the move.
- F) Moving Costs are based on the following assumptions:
 - 1) The value of the equipment and materials to be moved is equal to half of the value of the program.

- 2) The amount of tonnage to be moved is equal to the value of the equipment divided by \$10,000.
- 3) To calculate the total moving costs, multiply (1) the surface freight charge of \$1.33/ton/mile by (2) the distance between two points and (3) the tonnage of equipment moved.
- 4) The in-transit loss of equipment and materials is equal to two percent of the value of the equipment and materials moved.

SECTION II: SAVINGS ANALYSIS

There are five categories of savings from moving the Milford lab to the James J. Howard Lab: (1) the sale of the property, (2) the savings from RIFing people at the lab, (3) the savings from people taking early retirements, (4) the savings from people taking full retirements, and (5) the savings for the Operations and Maintenance (O&M) at Milford.

Savings Summary

The following is a summary table of the annual savings listed above.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Property Sale	\$2,214,310					
RIF ¹		\$159,308	\$270,901	\$270,901	\$270,901	\$270,901
Early Retirement ²		140,659	140,659	140,659	195,992	195,992
Full Retirement		363,261	363,261	363,261	363,261	363,261
O&M		416,982	416,982	416,982	416,982	416,982
Total Savings	\$2,214,310	\$1,080,210	\$1,191,803	\$1,191,803	\$1,247,136	\$1,247,136

¹Net of Severance costs in Year 1 ²Net of Retirement pay in Years 1 - 3

SECTION III: COSTS

There are six categories of Costs associated with moving the Milford lab to the James J. Howard lab: (1) RIF costs, (2) O&M cost increase at James J. Howard, (3) permanent change of station costs, (4) opportunity costs, (5) moving costs, and (6) administrative rehire costs.

Cost Summary

The following is a summary table of the annual costs listed above.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
RIF ¹		\$77,000				
O&M Increase		276,600	\$276,600	\$276,600	\$276,600	\$276,600
PCS	\$812,700					
Opportunity		231,350				
Moving	40,877					
Adm Rehire		57,448	57,448	57,448	57,448	57,448
Total	\$853,577	\$642,398	\$334,048	\$334,048	\$334,048	\$334,048

¹Unemployment costs

SECTION IV: NET PRESENT VALUE ANALYSIS

Net Value

The net value equals the total row from the savings summary minus the total row from the cost summary.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Savings Total	\$2,214,310	\$1,080,210	\$1,191,803	\$1,191,803	\$1,247,136	\$1,247,136
Costs Total	853,577	642,398	334,048	334,048	334,048	334,048
Net Value	\$1,360,733	\$437,812	\$857,755	\$857,755	\$913,088	\$913,088

Net Present Value

Net present value takes the net value and puts it in current dollar value terms using the formula $NPV = 1/(1+i)^t$, where i is the discount rate and t is the year. The discount rate used in this analysis equals the real interest rate on a five year treasury note, which equals 2.7 percent.

Discount Rate	Year	Year	Year	Year	Year	Year
2.7%	0	1	2	3	4	5
NPV	\$1,360,733	\$426,302	\$813,247	\$791,866	\$820,788	\$799,209
Total NPV	\$5,012,145					

SOUTHEAST FISHERIES SCIENCE CENTER ANALYSIS

We toured each of the Southeast Center facilities, spoke with people in each major program area, and interviewed collaborators and customers as appropriate. After considering the options available in the Southeast, we determined that a more efficient use of NMFS resources would be achieved by closing the National Seafood Inspection Lab and the Oxford lab, as well as moving programs from the Bay St. Louis and Panama City facilities to the Pascagoula facility. Our rationales in recommending closing certain labs and having others stay open are presented below:

We did not recommend closing the Galveston lab because the work being conducted there is high priority. We decided not to move the research being conducted there for several reasons: (1) the facility is relatively large (approximately 70 FTEs); it has a staff large enough to make moving costs prohibitive, and there are no other facilities available with the ability to accommodate the programs and personnel, (2) it is strategically located to stage its research, (3) it is currently undergoing a phased renovation that will greatly improve the condition of the facilities, and (4) it has well-established connections with nearby Texas A&M University.

We did not recommend closing the Pascagoula lab because the research being conducted there is high priority. We did not recommend moving the lab because no other Southeast Center labs near the Gulf have docking facilities that could accommodate the large vessels currently stationed at Pascagoula.

We recommend closing the National Seafood Inspection lab, which is colocated with the Pascagoula lab. Not only is the research relatively low-priority, but analytical testing of seafood is available from commercial labs. The lab's remaining functions are not sufficient to justify keeping it open. Any projects in process that are deemed critical could be assigned to the Montlake or Charleston labs for completion. Closing NSIL will involve RIFing the positions associated with the lab and eliminating all of its functions. We estimate that closing NSIL will yield approximately \$2,565,000 in benefits over a five year period. Our analysis is detailed in the section below entitled "National Seafood Inspection Laboratory."

We recommend vacating NMFS-occupied space at the Bay St. Louis facility and moving programs to space at Pascagoula that would be freed up by closing NSIL. The programs at Bay St. Louis are high priority, but they are not site-specific; therefore, they could be moved if an adequate host facility exists. Once NSIL is closed, the Pascagoula facility will have the sufficient amount and type of space required to absorb the Bay St. Louis programs. Furthermore, research at Bay St. Louis is generally done to support the survey work at Pascagoula. Our cost benefit analysis revealed that it is cost-beneficial to move the Bay St. Louis programs to Pascagoula, with approximately \$257,000 in benefits to be realized over a five year period. Our analysis is detailed in the section below entitled "Bay St. Louis Laboratory."

We recommend closing the Panama City lab and moving programs to space at Pascagoula that would be freed up by closing NSIL. Combining the Pascagoula and Panama City labs could

benefit research in two ways. First, only 10 FTEs are stationed at Panama City. Consolidating Panama City with Pascagoula will allow the research effort to reach a critical mass. Second, various projects at Panama City are already done in coordination with Pascagoula; therefore, consolidating the two labs will increase programmatic synergies. The work being conducted at Panama City is high priority, but it is not site-specific; therefore, it could be moved if an adequate host facility exists. Once NSIL is closed, the Pascagoula facility will have sufficient space to absorb the Panama City programs. Our cost benefit analysis shows that approximately \$1,609,000 in benefits could be realized over a five year period from implementing this recommendation. Our analysis is detailed in the section below entitled “Panama City Laboratory.”

We did not recommend closing the Miami lab because the work being conducted there is high priority. Although the programs are not site-specific, a fairly large number of personnel are stationed at the facility, which would make moving costs prohibitive, and there are no other NMFS facilities available that can accommodate the programs and personnel.

We did not recommend closing or moving the Charleston lab for several reasons. Although the lab is conducting relatively low priority work, no other agencies appear to wholly duplicate that work. And although the research is not site-specific, a fairly large number of personnel are stationed at the facility. The lab’s large staff would make moving costs prohibitive, and there are no other facilities that can accommodate the programs and personnel.

We did not recommend closing the Beaufort lab because the research being conducted there is high priority. We did not recommend moving the lab because its location is highly advantageous to its research. Furthermore, a fairly large number of personnel are stationed at the facility, which would make moving costs prohibitive, and there are no other NMFS facilities that can accommodate the programs and personnel.

We recommend closing the Oxford lab because the research being conducted there is low priority and other agencies can conduct this type of research. The state of Maryland has long expressed interest in acquiring this facility, and in the past, NMFS has conceded that the bulk of its current research could and should be transferred to the state. Recently, NOAA has decided to increase program responsibilities at Oxford to include habitat research, but work in this area is not yet underway. The lab is also now participating in the Marine Mammal and Sea Turtle Stranding Network, which requires only a minimal effort. Therefore, we recommend that NMFS transfer the bulk of its programmatic responsibilities to other agencies as appropriate. Programs that are not transferred could be phased out, out sourced, or continued at Beaufort. We estimate that, if all programs are eventually discontinued and personnel are transferred to existing space at Beaufort, NMFS will realize net benefits of approximately \$2,379,000 over a five year period. Our analysis is detailed in the section below entitled “Oxford Laboratory.”

NATIONAL SEAFOOD INSPECTION LABORATORY

We conducted our cost/benefit analysis in accordance with OMB Circular A-94 (see Appendix B page 2).

SECTION I: OVERALL ASSUMPTIONS

We made several assumptions in conducting our analysis. Most assumptions we utilized are similar to those used in prior NMFS consolidation studies. Some assumptions have been modified, such as the amount of PCS costs and severance pay for affected personnel, to better reflect changed conditions.

- A) Administrative Personnel
 - 1) All those eligible for full or early retirement will take it.
 - 2) All others will be RIFed and receive severance pay.
- B) Programmatic Personnel
 - 1) All those eligible for full retirement will take it.
 - 2) All those eligible for early retirement will take it rather than be RIFed when NSIL's programs are eliminated.
 - 3) All those not eligible for full or early retirement will be RIFed because NSIL's programs will be eliminated.
- C) Average Unemployment Compensation = \$11,000 per person. We consider this to be a high estimate that could apply in any regional analysis.

SECTION II: SAVINGS ANALYSIS

There are three categories of savings from closing NSIL: (1) reduction in force, (2) full retirement, and (3) early retirement.

Savings Summary

The following is a summary table of the annual savings listed in the above analysis.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Reduction in Force		\$469,013	\$469,013	\$469,013	\$469,013	\$469,013
Full Retirement		128,090	128,090	128,090	128,090	128,090
Early Retirement		32,710	32,710	32,710	32,710	32,710
Total Savings	\$0	\$629,813	\$629,813	\$629,813	\$629,813	\$629,813

SECTION III: COSTS

There are three distinct categories of costs associated with closing NSIL: (1) unemployment costs, (2) severance costs, and (3) early retirement costs.

Cost Summary

The following is a summary table of the annual costs listed above.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Unemployment		\$143,000				
Severance		155,436				
Early Retirement		18,766	\$18,766	\$18,766		
Total	\$0	\$317,202	\$18,766	\$18,766	\$0	\$0

SECTION IV: NET PRESENT VALUE ANALYSIS

Net Value

The net value equals the total row from the savings summary minus the total row from the cost summary.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Savings Total	\$0	\$629,813	\$629,813	\$629,813	\$629,813	\$629,813
Costs Total	0	317,202	18,766	18,766	0	0
Net Value	\$0	\$312,611	\$611,047	\$611,047	\$629,813	\$629,813

Net Present Value

Net present value takes the net value and an puts it in current dollar value terms using the formula $NPV=1/(1+i)^t$, where i is the discount rate and t is the year. The discount rate used in this analysis equals the real interest rate on a five year treasury note, which equals 2.7 percent.

Discount Rate	Year	Year	Year	Year	Year	Year
2.7%	0	1	2	3	4	5
NPV	\$0	\$304,392	\$579,340	\$564,109	\$566,148	\$551,264
Total NPV	\$2,565,254					

BAY ST. LOUIS LABORATORY

We conducted our cost/benefit analysis in accordance with OMB Circular A-94 (see Appendix B page 2).

SECTION I: OVERALL ASSUMPTIONS

We made several assumptions in conducting our analysis. Most assumption we utilized are similar to those used in prior NMFS consolidation studies. Some assumptions have been modified, such as the amount of PCS costs and severance pay for affected personnel, to better reflect changed conditions.

- A) Administrative Personnel
 - 1) All those eligible for full or early retirement will take it.
 - 2) All others will be RIFed and receive severance pay.
 - 3) Only twenty-five percent of Bay St. Louis's total administrative personnel will be rehired at Pascagoula.
- B) Programmatic Personnel
 - 1) All those eligible for full retirement will take it.
 - 2) Fifty percent of those eligible for early retirement will take it; the other fifty percent will transfer.
 - 3) Seventy-five percent of those not eligible for full or early retirement will transfer; the other twenty-five percent will choose not to transfer and will receive severance pay.
 - 4) No programs will be terminated; therefore, all those who take full or early retirement, or do not transfer, will be replaced at the new facility.
 - 5) The savings from replacing personnel who retire will be calculated by using the average salaries of those *not* eligible for retirement. This is because the starting salaries of replacement personnel hired would be lower than the salaries of those who retired.
- C) Average Unemployment Compensation = \$11,000 per person. We consider this to be a high estimate that could apply in any regional analysis.
- D) Average Permanent Change of Station (PCS) costs = \$54,180 per person. We consider this to be a high estimate that could apply in any regional analysis.
- E) "Opportunity costs" represent disruption and move support costs and equal ten percent of the total programmatic value prior to the move.
- F) Moving costs are based on the following assumptions:
 - 1) The value of the equipment and materials to be moved is equal to half of the value of the program.
 - 2) The amount of tonnage to be moved is equal to the value of the equipment divided by \$10,000.
 - 3) To calculate the total moving costs, multiply (1) the surface freight charge of \$1.33/ton/mile by (2) the distance between two points and (3) the tonnage of equipment moved.
 - 4) The in-transit loss of equipment and materials is equal to two percent of the value of the equipment and materials moved.

SECTION II: SAVINGS ANALYSIS

There are four categories of savings from moving the Bay St. Louis lab to the Pascagoula lab: (1) reduction in force, (2) the savings from people taking early retirements, (3) the savings from people taking full retirements, and (4) Operations and Maintenance (O&M).

Savings Summary

The following is a summary table of the annual savings listed above.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
RIF ¹		\$47,584	\$88,852	\$88,852	\$88,852	\$88,852
Early Retirement ²		38,051	38,051	38,051	43,522	43,522
Retirement		79,754	79,754	79,754	79,754	79,754
O&M		93,500	93,500	93,500	93,500	93,500
Total Savings		\$258,889	\$300,157	\$300,157	\$305,628	\$305,628

¹Net of Severance costs in Year 1 ²Net of Retirement pay in Years 1 - 3

SECTION III: COSTS

There are five categories of Costs associated with moving the Bay St. Louis lab to the Pascagoula lab: (1) RIF costs, (2) permanent change of station costs, (3) opportunity costs, (4) moving costs, and (5) rehire costs.

Cost Summary

The following is a summary table of the annual costs listed above.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
RIF Costs ¹		\$33,000				
PCS Costs	\$270,900					
Opportunity		79,700				
Moving Costs	10,647					
Rehire		153,231	\$153,231	\$153,231	\$153,231	\$153,231
Total	\$281,547	\$265,931	\$153,231	\$153,231	\$153,231	\$153,231

¹Unemployment Costs

SECTION IV: NET PRESENT VALUE ANALYSIS

Net Value

The net value equals the total row from the savings summary minus the total row from the cost summary.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Savings Total	\$0	\$258,889	\$300,157	\$300,157	\$305,628	\$305,628
Costs Total	281,547	265,931	153,231	153,231	153,231	153,231
Net Value	(\$281,547)	(\$7,042)	\$146,926	\$146,926	\$152,397	\$152,397

Net Present Value

Net present value takes the net value and puts it in current dollar value terms using the formula $NPV=1/(1+i)^t$, where i is the discount rate and t is the year. The discount rate used in this analysis equals the real interest rate on a five year treasury note, which equals 2.7 percent.

Discount Rate	Year	Year	Year	Year	Year	Year
2.7%	0	1	2	3	4	5
NPV	(\$281,547)	(\$6,857)	\$139,302	\$135,640	\$136,992	\$133,390
Total NPV	\$256,920					

PANAMA CITY LABORATORY

We conducted our cost/benefit analysis in accordance with OMB Circular A-94 (see Appendix B page 2).

SECTION I: OVERALL ASSUMPTIONS

We made several assumptions in conducting our analysis. Most assumption we utilized are similar to those used in prior NMFS consolidation studies. Some assumptions have been modified, such as the amount of PCS costs and severance pay for affected personnel, to better reflect changed conditions.

- A) Administrative Personnel
 - 1) All those eligible for full or early retirement would take it.
 - 2) All others will be RIFed and receive severance pay.
 - 3) Only twenty-five percent of Panama City's total administrative personnel will be re-hired at Pascagoula.
- B) Programmatic Personnel
 - 1) All those eligible for full retirement will take it.
 - 2) Fifty percent of those eligible for early retirement will take it; the other fifty percent will transfer.
 - 3) Seventy-five percent of those not eligible for full or early retirement will transfer; the other twenty-five percent will choose not to transfer and receive severance pay. These positions will be refilled.
 - 4) All positions vacated by those who take full or early retirement will be refilled because all programs are high priority.
 - 5) All student hires and part-time personnel will not transfer, and will be RIFed. However, these positions will be refilled in the new location.
 - 6) The savings from replacing personnel who retire will be calculated by using the average salaries of those *not* eligible for retirement. This is because the starting salaries of replacement personnel hired would be lower than the salaries of those who retired.
- C) Average Unemployment Compensation = \$11,000 per person. We consider this to be a high estimate that could apply in any regional analysis.
- D) Average Permanent Change of Station (PCS) costs = \$54,180 per person. We consider this to be a high estimate that could apply in any regional analysis.
- E) "Opportunity costs" represent disruption and move support costs and equal ten percent of the total programmatic value prior to the move.
- F) Moving costs are based on the following assumptions:
 - 1) The value of the equipment and materials to be moved is equal to half of the value of the program.
 - 2) The amount of tonnage to be moved is equal to the value of the equipment divided by \$10,000.
 - 3) To calculate the total moving costs, multiply (1) the surface freight charge of \$1.33/ton/mile by (2) the distance between two points and (3) the tonnage of equipment moved.

- 4) The in-transit loss of equipment and materials is equal to two percent of the value of the equipment and materials moved.

SECTION II: SAVINGS ANALYSIS

There are five categories of savings from moving the Panama City lab to the Pascagoula lab: (1) sale of property (2) Operations and Maintenance (O&M) (3) the savings from RIFing people at the lab, (4) the savings from people taking early retirements, and (5) the savings from people taking full retirements.

Savings Summary

The following is a summary table of the annual savings listed above.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Sale of Property	\$1,285,705					
O&M		\$65,506	\$65,506	\$65,506	\$65,506	\$65,506
RIF ¹		112,133	209,388	209,388	209,388	209,388
Early Retirement ²		54,530	54,530	54,530	109,598	109,598
Full Retirement		148,632	148,632	148,632	148,632	148,632
Total Savings	\$1,285,705	\$380,801	\$478,056	\$478,056	\$533,124	\$533,124

¹Net of Severance costs in Year 1 ²Net of Retirement pay in Years 1 - 3

SECTION III: COSTS

There are five categories of Costs associated with moving the Panama City lab to the Pascagoula lab: (1) RIF costs, (2) permanent change of station costs, (3) opportunity costs, (4) moving costs, and (5) rehire costs.

Cost Summary

The following is a summary table of the annual costs listed above.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
RIF ¹		\$88,000				
PCS	\$216,720					
Opportunity		79,490				
Moving	18,098					
Rehire		322,546	\$322,546	\$322,546	\$322,546	\$322,546
Total	\$234,818	\$490,036	\$322,546	\$322,546	\$322,546	\$322,546

¹Unemployment Costs

SECTION IV: NET PRESENT VALUE ANALYSIS

Net Value

The net value equals the total row from the savings summary minus the total row from the cost summary.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Savings Total	\$1,285,705	\$380,801	\$478,056	\$478,056	\$533,124	\$533,124
Costs Total	234,818	490,036	322,546	322,546	322,546	322,546
Net Value	\$1,050,887	(\$109,235)	\$155,510	\$155,510	\$210,578	\$210,578

Net Present Value

Net present value takes the net value and an puts in and current dollar value terms using the formula $NPV=1/(1+i)^t$, where i is the discount rate and t is the year. The discount rate used in this analysis equals the real interest rate on a five year treasury note, which equals 2.7 percent.

Discount Rate	Year	Year	Year	Year	Year	Year
2.7%	0	1	2	3	4	5
NPV	\$1,050,887	(\$106,363)	\$147,441	\$143,564	\$189,292	\$184,315
Total NPV	\$1,609,136					

OXFORD LABORATORY

We conducted our cost/benefit analysis in accordance with OMB Circular A-94 (see Appendix B page 2).

SECTION I: OVERALL ASSUMPTIONS

We made several assumptions in conducting our analysis. Most assumption we utilized are similar to those used in prior NMFS consolidation studies. Some assumptions have been modified, such as the amount of PCS costs and severance pay for affected personnel, to better reflect changed conditions.

- A) Administrative Personnel
 - 1) All those eligible for full or early retirement will take it.
 - 2) All others will be RIFed and receive severance pay.
 - 3) Only twenty-five percent of Oxford's total administrative personnel will be re-hired at Beaufort.
- B) Programmatic Personnel
 - 1) All those eligible for full retirement will take it.
 - 2) Fifty percent of those eligible for early retirement will take it; the other fifty percent will transfer.
 - 3) Seventy-five percent of those not eligible for full or early retirement will transfer; the other twenty-five percent will choose not to transfer and will receive severance pay. These positions will not be refilled.
 - 4) None of those who take full or early retirements will be re-hired. We are assuming that the Oxford programs will either be phased out or scaled back permanently because they are lower priority; therefore, no programmatic personnel should be re-hired.
 - 5) The savings from not replacing personnel who retire will be calculated by multiplying the average salaries of those eligible for retirement by the number of people eligible for retirement.
- C) Average Unemployment Compensation = \$11,000 per person. We consider this to be a high estimate that could apply in any regional analysis.
- D) Average Permanent Change of Station (PCS) costs = \$54,180 per person. We consider this to be a high estimate that could apply in any regional analysis.
- E) "Opportunity costs" represent disruption and move support costs and equal ten percent of the total programmatic value prior to the move.
- F) Moving costs are based on the following assumptions:
 - 1) The value of the equipment and materials to be moved is equal to half of the value of the program.
 - 2) The amount of tonnage to be moved is equal to the value of the equipment divided by \$10,000.

- 3) To calculate the total moving costs, multiply (1) the surface freight charge of \$1.33/ton/mile by (2) the distance between two points and (3) the tonnage of equipment moved.
- 4) The in-transit loss of equipment and materials is equal to two percent of the value of the equipment and materials moved.

SECTION II: SAVINGS ANALYSIS

There are five categories of savings from moving the Oxford lab to the Beaufort lab: (1) the sale of the property, (2) the savings from RIFing people at the lab, (3) the savings from people taking early retirement, (4) the savings from people taking full retirements, and (5) the savings from the Operations and Maintenance (O&M) at Oxford.

Savings Summary

The following is a summary table of the annual savings listed above.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Property Sale	\$1,481,150					
RIF ¹		\$58,604	\$109,438	\$109,438	\$109,438	\$109,438
Early Retirement ²		60,682	60,682	60,682	109,438	109,438
Full Retirement		110,516	110,516	110,516	110,516	110,516
O&M		48,000	48,000	48,000	48,000	48,000
Total Savings	\$1,481,150	\$277,802	\$328,636	\$328,636	\$377,392	\$377,392

¹Net of Severance costs in Year 1 ²Net of Retirement pay in Years 1 - 3

SECTION III: COSTS

There are five categories of Costs associated with moving the Oxford lab to the Beaufort lab: (1) RIF costs, (2) permanent change of station costs, (3) opportunity costs, (4) moving costs, and (5) administrative rehire costs.

Cost Summary

The following is a summary table of the annual costs listed above.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
RIF ¹		\$33,000				
PCS	\$216,720					
Opportunity		56,300				
Moving	19,670					
Adm Rehire		72,240	\$72,240	\$72,240	\$72,240	\$72,240
Total	\$236,390	\$161,540	\$72,240	\$72,240	\$72,240	\$72,240

¹Unemployment Costs

SECTION IV: NET PRESENT VALUE ANALYSIS

Net Value

The net value equals the total row from the savings summary minus the total row from the cost summary.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Savings Total	\$1,481,150	\$277,802	\$328,636	\$328,636	\$377,392	\$377,392
Costs Total	236,390	161,540	72,240	72,240	72,240	72,240
Net Value	\$1,244,760	\$116,262	\$256,396	\$256,396	\$305,152	\$305,152

Net Present Value

Net present value takes the net value and puts it in current dollar value terms using the formula $NPV = 1/(1+i)^t$, where i is the discount rate and t is the year. The discount rate used in this analysis equals the real interest rate on a five year treasury note, which equals 2.7 percent.

Discount Rate	Year	Year	Year	Year	Year	Year
2.7%	0	1	2	3	4	5
NPV	\$1,244,760	\$113,205	\$243,092	\$236,701	\$274,305	\$267,094
Total NPV	\$2,379,158					

ALASKA FISHERIES SCIENCE CENTER ANALYSIS

We visited the Sand Point, Auke Bay, and Little Port Walter facilities during our audit and we spoke with lab personnel, collaborators, and customers. Our detailed analysis of all the Alaska Center facilities and of the programs being conducted there confirmed that the current Center structure is adequate for NMFS's needs. We recommend no changes at this time. Our rationale is presented below:

We did not recommend closing the Sand Point facility because nearly all of the work being conducted there is high priority. We considered the option of moving these programs and personnel to the planned Auke Cape facility. Our programmatic analysis revealed that there is no logistical advantage to moving Sand Point programs to Auke Cape. Our space analysis showed that there is insufficient planned space to accommodate the programs. Finally, our cost benefit analysis concluded that the costs associated with moving programs to Auke Cape are prohibitive. We estimated the costs of moving personnel to Auke Cape and determined that, at a minimum, these costs would amount to approximately \$22.5 million. Add to this the costs associated with transporting scientific equipment overseas and it becomes evident that, with no compelling reason to move Sand Point programs to Auke Cape and no offsetting benefits, this is simply not a cost effective option.

We accept NMFS's plan to transfer programs and personnel from the Auke Bay lab to a proposed facility in Auke Cape. Most of the Auke Bay programs are high priority, but they are currently being conducted in a dilapidated facility. The new facility being planned at Auke Cape will adequately accommodate the Auke Bay programs. During our analysis, however, we reviewed the status of the Auke Cape project in detail. In 1994, we conducted an audit of NOAA's proposal to construct a new facility at Auke Cape (STL-5507-4-0001). At that time, we found that NOAA's space and cost estimates for the new facility were flawed. Upon reviewing the current Auke Cape space and cost estimates, we found that the space assessments were still inflated and that cost estimates had nearly doubled. As it stands, there will be space for 88 extra staff members.

We did not recommend closing the Little Port Walter field station for two primary reasons: (1) one of the two programs at Little Port Walter is high priority, and (2) the facility provides unique research capabilities for NMFS.

We did not recommend closing the Kodiak facility because the programs located there are high priority. Although the research is not site-specific to Kodiak, there are significant advantages to NMFS having a staging area for activities in western Alaska. Given that there are no other NMFS facilities in this region to accommodate the Kodiak personnel, we decided not to recommend moving the Kodiak programs.

NORTHWEST FISHERIES SCIENCE CENTER ANALYSIS

We visited Montlake, Manchester, Newport, and Point Adams, and we conducted interviews with appropriate lab personnel, collaborators, and customers. Our detailed analysis of all the Northwest Center facilities and of the programs being conducted there confirmed that the current Center structure is adequate for NMFS's needs. Our rationale is presented below:

We did not recommend closing the Montlake lab because three out of the four programs being conducted there are high priority. Because the research is not site-specific, we considered the option of moving the Montlake programs to other suitable facilities. One option considered was moving the programs to the Alaska Science Center's Sand Point facility. This would have been in conjunction with the potential recommendation (detailed in Appendix D, the "Alaska Center Analysis") to re-locate Alaska Center's Sand Point personnel to the proposed Auke Cape facility upon completion.

We found that the Sand Point facility does not have the specialized lab space and fresh water systems required by the Montlake programs. Renovating Sand Point to accommodate these programs would be costly and inefficient given that the required space and systems already exist at Montlake. In addition, as outlined above, we do not recommend moving any Alaska Center programs out of Sand Point. Therefore, Sand Point would not have adequate space to absorb the Montlake programs. No other NMFS facilities in the general area could accommodate the large number of personnel associated with the Montlake programs. As a result, we do not recommend moving the programs.

We did not recommend closing the Mukilteo lab because the research being conducted there is high priority. We did not recommend moving the facility because this is not cost-effective--the Mukilteo facility is a 'leased' facility for which NMFS pays no rent, and total operating and maintenance costs at Mukilteo are only \$10,800 per year.

We did not recommend closing the Pasco facility because it is conducting high priority research. We did not recommend moving the Pasco programs and personnel because, although the research is not absolutely site-specific, the facility's location is extremely advantageous.

We did not recommend closing the Newport facility because it houses high priority work for both the Alaska and Northwest Centers. We did not recommend moving the Newport programs because the facility has access to high quality seawater and fish rearing/holding facilities not readily available elsewhere.

We did not recommend closing the Point Adams facility because one of the programs being conducted at the facility is high priority. In addition, no other agencies are conducting the lower-priority work being conducted at Point Adams. We did not recommend moving the Point Adams facility because the operating and maintenance costs are relatively low, and the facility provides a good staging area for conducting Columbia River research.

SOUTHWEST FISHERIES SCIENCE CENTER ANALYSIS

We visited the La Jolla and Pacific Grove facilities and spoke with lab directors, program officials, and other appropriate parties. We conducted a phone interview with the Tiburon director, and the SWC director spoke to us regarding the Honolulu lab's programs and facility plans. After considering the options available in the Southwest, we determined that for safety reasons, the La Jolla and Tiburon facilities should be closed and their programs transferred to other NMFS facilities. Our rationales for recommending closing certain labs and having others stay open is presented below:

We do not believe the Pacific Grove facility should be closed because it is conducting high-priority research. We do not believe the facility should be moved because it benefits from close association with Fleet Numerical Meteorology and Oceanography Center. Furthermore, the operating and maintenance costs for the facility are relatively low, making it less cost-effective to move it to another location.

Our review led us to agree with NOAA's internal decision to move the Tiburon lab to a more suitable location, as the facility is currently in a grave state of disrepair. NOAA's Western Administrative Support Center determined it would be more cost-effective to relocate the research staff than to renovate the existing facility.

We also recommend that the La Jolla facility be vacated. Although the science programs are high priority and NMFS benefits from collocation with the Scripps Institute of Oceanography, the geology of the site presents serious risk to the lab staff and the general public. Furthermore, none of the programs at La Jolla are site-specific.

We interviewed a number of geologic experts from Scripps, the City of San Diego, and the private sector, and we reviewed a number of reports and studies of the geologic features underlying the NMFS buildings. Four significant points can be drawn from our work:

- ! Wave action and storms will continue to erode the cliff, and the buildings now have inadequate setback from the cliff edge.
- ! The lab was built on an existing landslide, and an earthquake could trigger cliff failure.
- ! The Rose Canyon fault may run directly underneath the lab.
- ! The beach beneath the lab is a popular area for the public to visit, and posting warning signs of the serious danger have not been successful in limiting use of the beach.

Given this situation, *we recommend that two of the six La Jolla programs and the Center directorate transfer to Santa Cruz.* The two La Jolla programs recommended for transfer are Genetics and Protected Species. NMFS currently plans to move programs and staff from Tiburon and Santa Rosa

into this planned facility. Our review led us to agree with NOAA's decision to move the Tiburon lab to Santa Cruz. However, to increase the amount of space available for the incoming La Jolla programs, we believe the NMFS Santa Rosa staff should remain in their current leased space. Even without the Santa Rosa personnel, there still is not enough planned space at Santa Cruz to accommodate the La Jolla staff and equipment associated with the programs to be transferred. Therefore, *we recommend that the planned Santa Cruz facility be expanded.* Of the remaining four La Jolla programs, Coastal Fisheries and West Coast Groundfish should be transferred to the Newport lab; Large Pelagics should be transferred to the Honolulu lab; and Antarctic Research should be transferred to the Alaska Center facility at Sand Point.

Coastal Fisheries and West Coast Groundfish should be transferred to the lab complex in Newport, Oregon. Several agencies organizations space at this complex, including the Environmental Protection Agency, Oregon State University, and NMFS. NOAA currently plans to remodel existing space and construct additional space for both the University and NOAA. Upon reviewing NOAA's prefinal space assessment, we found that planned renovations included significant space allotments for currently unauthorized program expansions. Furthermore, one of the buildings currently occupied by EPA has vacant space, which EPA has expressed interest in sharing with NMFS. Given this, we recommend that planned renovations and construction currently designated for unauthorized program expansions be designated instead to accommodate La Jolla's Coastal Fisheries and West Coast Groundfish programs.

We recommend that the Large Pelagics program be moved to the Southwest Center's Honolulu lab. Honolulu has a similar program, and researchers in the two programs already have significant interactions. Furthermore, NMFS is preparing to renovate existing space at Honolulu and transfer approximately 14 regional office personnel from Long Beach to the renovated Honolulu lab. We recommend that this transfer not take place and that, instead, personnel and equipment associated with La Jolla's Large Pelagics program move into renovated space in Honolulu.

We recommend that the Antarctic program be transferred to the Alaska Center and programmatically combined with that Center's Polar program. The Antarctic program is not site-specific, and the Alaska Center's Polar Program conducts complementary work. There is also space available at Sand Point to absorb the personnel and equipment associated with the Antarctic program. Our analysis revealed that it is more cost effective to move the Antarctic program to Sand Point than to construct extra space at Santa Cruz.

We estimated the space needs of the two La Jolla programs to be moved to Santa Cruz and determined that approximately 33,895 gross square feet of additional space needs to be constructed, which would cost approximately \$17,324,000. The net present value over a five year period associated with expanding construction efforts at Santa Cruz and transferring La Jolla personnel and equipment to Santa Cruz, Sand Point, Newport, and Honolulu equals approximately \$19,956,000. These costs are in addition to original NMFS Santa Cruz cost estimates.

Although this represents a large initial outlay for NMFS, the safety of the researchers who currently work in unstable and possibly life threatening conditions is an overriding factor. Furthermore, it is more cost-beneficial for NMFS to relocate La Jolla staff now under this plan than to postpone action. NMFS currently plans to maintain the status quo with regards to the La Jolla facility.

However, several geologic experts have maintained that it is only a matter of time before total cliff failure occurs. If NMFS fails to adequately plan ahead, emergency measures will likely force NMFS into making costly, inadequately planned facility decisions.

Assume, for example that NMFS does maintain the status quo at La Jolla. Also assume that within five years, the La Jolla coastline degrades to a point where the facility becomes unoccupiable. The cost of building a replacement facility in San Diego County for the entire La Jolla staff would be approximately \$33,486,000. This cost does not include costs that might be associated with leasing temporary space and temporarily moving equipment should NMFS be forced to evacuate the La Jolla facility before a replacement facility is built. Our recommendation will cost approximately \$19,956,000. By planning ahead to occupy the Santa Cruz facility, NMFS can potentially save approximately \$13,530,000.

We conducted our cost/benefit analysis of closing La Jolla and transferring its programs and personnel to other NMFS facilities in accordance with OMB Circular A-94 (see Appendix B page 2.)

SECTION I: OVERALL ASSUMPTIONS

We made several assumptions in conducting our analysis. Most assumption we utilized are similar to those used in prior NMFS consolidation studies. Some assumptions have been modified, such as the amount of PCS costs and severance pay for affected personnel, to better reflect changed conditions.

- A) Administrative Personnel
 - 1) All those eligible for full or early retirement will take it.
 - 2) All others will be RIFed and receive severance pay.
 - 3) All of La Jolla's total administrative personnel will be re-hired.
- B) Programmatic Personnel
 - 1) All those eligible for full retirement will take it.
 - 2) Fifty percent of those eligible for early retirement will take it; the other fifty percent will transfer.
 - 3) Seventy-five percent of those not eligible for full or early retirement will transfer; the other twenty-five percent will choose not to transfer and will receive severance pay. These positions will be refilled.
 - 4) All positions of those who retire or take early out will be refilled because all programs are high priority.
 - 5) The savings from replacing personnel who retire will be calculated by using the average salaries of those *not* eligible for retirement. This is because the starting salaries of replacement personnel hired would be lower than the salaries of those who retired.
- C) Average Unemployment Compensation = \$11,000 per person. We consider this to be a high estimate that could apply in any regional analysis.
- D) Average Permanent Change of Station (PCS) costs = \$54,180 per person. We consider this to be a high estimate that could apply in any regional analysis.
- E) "Opportunity costs" represent disruption and move support costs and equal ten percent of the total programmatic value prior to the move.

- F) Moving costs are based on the following assumptions:
- 1) The value of the equipment and materials to be moved is equal to half of the value of the program.
 - 2) The amount of tonnage to be moved is equal to the value of the equipment divided by \$10,000.
 - 3) To calculate the total moving costs, multiply (1) the surface freight charge of \$1.33/ton/mile by (2) the distance between two points and (3) the tonnage of equipment moved.
 - 4) The in-transit loss of equipment and materials is equal to two percent of the value of the equipment and materials moved.

SECTION II: SAVINGS ANALYSIS

There are five categories of savings from moving the La Jolla lab: (1) the savings from RIFing people, (2) the savings from people taking early retirements, (3) the savings from people taking full retirements, (4) permanent change of station costs not incurred by Santa Rosa personnel, and (5) cost of living adjustment costs not incurred by Long Beach personnel.

Savings Summary

The following is a summary table of the annual savings listed above.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
RIF ¹		\$769,389	\$1,373,408	\$1,373,408	\$1,373,408	\$1,373,408
Early Retirement ²		497,700	497,700	497,700	960,444	960,444
Full Retirement		422,980	422,980	422,980	422,980	422,980
PCS Savings	\$1,679,580					
COLA Savings		166,743	166,743	166,743	166,743	166,743
Total Savings	\$1,679,580	\$1,856,812	\$2,460,831	\$2,460,831	\$2,923,575	\$2,923,575

¹Net of Severance costs in Year 1 ²Net of Retirement pay in Years 1 - 3

SECTION III: COSTS

There are eight categories of costs associated with moving the La Jolla lab: (1) construction costs, (2) RIF costs, (3) permanent change of station costs, (4) opportunity costs, (5) moving costs (6) rehire costs, (7) Hawaiian COLA adjustment costs, and (8) lease costs.

Cost Summary

The following is a summary table of the annual costs listed above.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Construction	\$17,324,000					
RIF ¹		\$352,000				
PCS	1,787,940					
Opportunity		701,380				
Moving	471,621					
Rehire		2,441,150	\$2,441,150	\$2,441,150	\$2,441,150	\$2,441,150
COLA		129,737	129,737	129,737	129,737	129,737
Lease		162,495	162,495	162,495	162,495	162,495
Total	\$19,583,561	\$3,786,762	\$2,733,382	\$2,733,382	\$2,733,382	\$2,733,382

¹Unemployment Costs

SECTION IV: NET PRESENT VALUE ANALYSIS

Net Value

The net value equals the total row from the savings summary minus the total row from the cost summary.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Savings Total	\$1,679,580	\$1,856,812	\$2,460,831	\$2,460,831	\$2,923,575	\$2,923,575
Costs Total	19,583,561	3,786,762	2,733,382	2,733,382	2,733,382	2,733,382
Net Value	(\$17,903,981)	(\$1,929,950)	(\$272,551)	(\$272,551)	\$190,193	\$190,193

Net Present Value

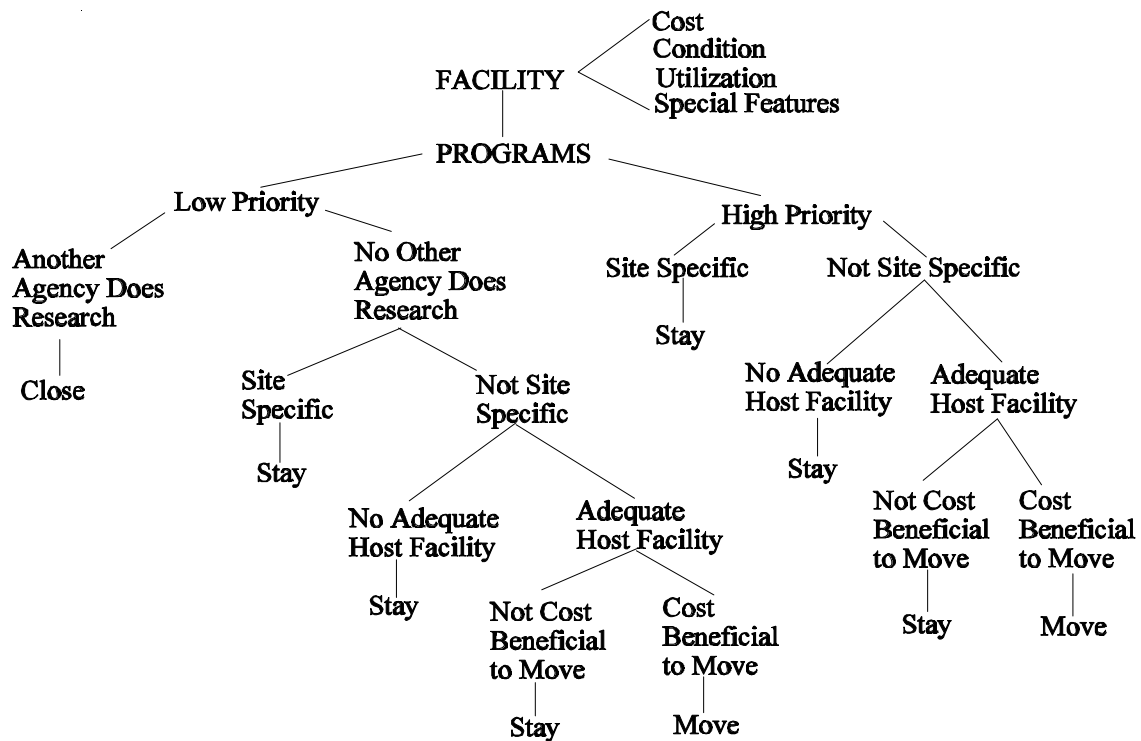
Net present value takes the net value and puts it in current dollar value terms using the formula $NPV=1/(1+i)^t$, where i is the discount rate and t is the year. The discount rate used in this analysis equals the real interest rate on a five year treasury note, which equals 2.7 percent.

Discount Rate	Year	Year	Year	Year	Year	Year
2.7%	0	1	2	3	4	5
NPV	(\$17,903,981)	(\$1,879,211)	(\$258,409)	(\$251,615)	\$170,967	\$166,472
Total NPV	(\$19,955,777)					

CALCULATION OF SAVINGS (COST AVOIDANCE):

Represents the NPV (a net cost) of additional construction and transfer of personnel and programs per our recommendations	\$19,955,777
Represents the cost of rebuilding the La Jolla lab in the same area when the lab becomes unusable because of geological problems	<u>\$33,486,000</u>
Net benefits (a cost avoidance)	<u>\$13,530,223</u>

CLOSURE/CONSOLIDATION CRITERIA



The above is a visual representation of our closure and consolidation criteria. There are five main decision factors by program¹:

- ! Site-specificness.

¹A “program” is the equivalent of an “Activity” as identified by NMFS during its recent NOAA Laboratory Consolidation Review. During our fieldwork we interviewed NMFS staff to determine if research activities had significantly changed since the NOAA review and made appropriate modifications. We also noted that laboratory organizational structures did not always conform to identified research thrusts and took this into account when developing recommendations.

- ! Relative priority.²
- ! Duplication of low-priority research by other agencies.
- ! Availability of host facilities.
- ! Costs vs. Benefits of moving programs.

Programs were analyzed individually and in conjunction with the facility as a whole. Several facility factors were also taken into account:

- ! Cost.
- ! Condition.
- ! Utilization.
- ! Special Features.

Any one of these facility factors can override a decision to retain, terminate, or move a program. For instance, if a program is both high priority and site-specific, our analysis initially leads us to a “Stay” conclusion. However, if a review of the facility factors reveals that the buildings are underutilized, expensive to operate and maintain, and in poor condition, these factors could override the initial “Stay” conclusion and possibly result in a “Move” conclusion.

To address the program and facility criteria outlined in the above chart, we relied on several sources of data:

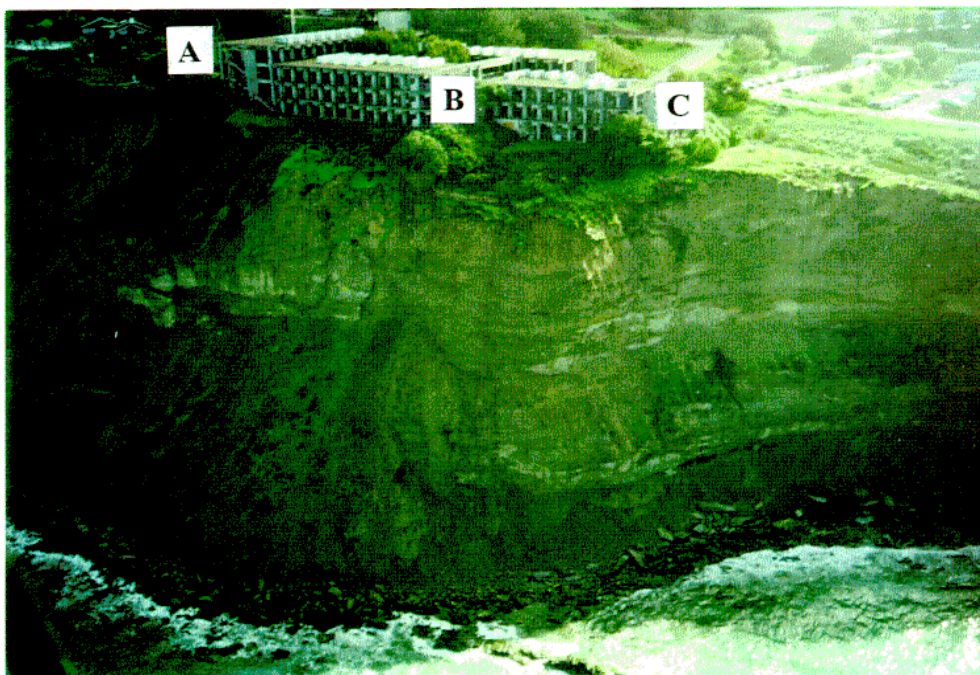
- ! Programmatic, facility, and personnel information obtained through an OIG data request.
- ! Programmatic, facility, and personnel information obtained by the OIG during site visits.
- ! Basic program and facility data gathered during NMFS’s Laboratory Consolidation Study.
- ! Information contained in previous NMFS laboratory reviews.
- ! Information contained in NOAA administrative service center property files and central personnel databases.

The results of our analyses are detailed in Appendices B through F.

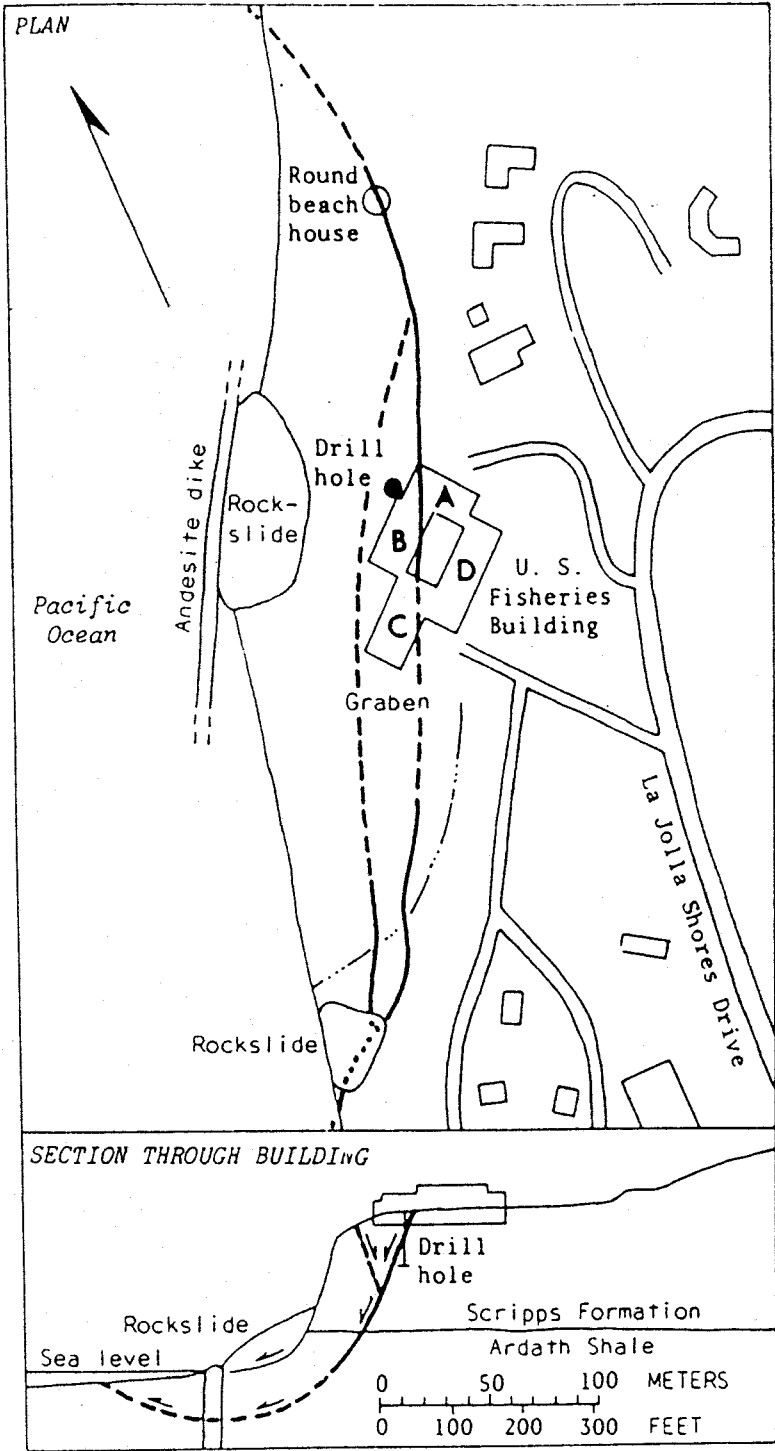
²To determine relative priority, we multiplied the mission priority ratings and the expected economic benefit ratings developed by NMFS during the recent NMFS Laboratory Consolidation Review for each program. We designated as high priority those programs that scored 6 or above in this calculation. For additional information, see Appendix H. We assumed that all research designated as high priority would continue.

GEOLOGIC PERSPECTIVE: LA JOLLA

The photo at the right is a view south along the bluff on which the lab sits. The photo below is a view east. The building letters correspond to the letters in the schematic drawing on the next page. Photos are courtesy of the County of San Diego, California.



The schematic drawing at the right shows the geological features under the La Jolla lab. The drawing was taken from "Sea Cliffs, Beaches, and Coastal Valleys of San Diego County," by Gerald G. Kuhn and Francis P. Shepard.



OIG RELIANCE ON DATA IN NOAA'S
NMFS LABORATORY CONSOLIDATION STUDY REPORT
DATED JUNE 1996

! Background

NOAA conducted a consolidation study of NMFS laboratories and issued a report in June 1996. The closure/consolidation options presented in NOAA's report were based, in large part, on the scores calculated by a linear numerical decision model developed for the study. The decision model included eight variables for each lab's science programs. The decision model included five variables for each lab facility. NOAA obtained data for all the variables and subjected the data to a validation process. The program and facility scores were calculated from the data. NOAA provided us with the validated data and scores. While OIG representatives observed portions of the data gathering process, OIG representatives did not participate in the validation process of the NOAA review team.

! Science program scores and expected economic benefits.

One variable in NOAA's numerical model was the mission score. NMFS administered a questionnaire to its senior management at headquarters and in the field. The process was designed to derive a score that reflected the relative importance of 87 science programs conducted throughout the NMFS lab system. The mission numerical scores fell between 3 and 10.

An additional variable was the economic benefit score. The scores were assigned by the lab directors and subjected to a validation process by the NOAA science review team. Expected economic benefit was a function of: (1) the likelihood that the scientific activity will be successful, (2) the value of the results if the activity is successful, and (3) the costs. The economic benefit scores fell between .7 and 1. The product of the scores (mission score X economic benefit score) was the most significant component of NOAA's decision model. We relied on the mission and economic benefit scores because of NOAA expertise in this area. While we were not part of NOAA's validation process, we believe that the NOAA process removed as much subjectivity as possible, and the resultant program scores were a reasonable assessment of the relative priorities of the lab science programs.

! Use of scores to establish high and low priority science programs

We used the mission and economic benefit scores to establish the relative priority of NMFS' science programs at each lab. We converted the numerical scores described above to high or low priority. We classified as high priority, 72 science programs whose mission and economic benefits scores were six and above. This designation included science programs that support core NMFS mission areas of fisheries management, protection and recovery of endangered species, protection and conservation of marine mammals, and conservation of coastal ecosystems.

We classified as low priority, 15 science programs whose mission and economic benefits scores were below six. This designation included science programs that support NMFS mission areas of aquaculture, maintaining biodiversity, and seafood safety. While arguably these 15 programs may be considered important research areas, these programs are lower in priority to the research programs that support NMFS core mission.

Because we used a different methodology in conducting our review, we did not use the other data sets obtained during NOAA's lab consolidation review other than for background information. .

! Additional references to the NOAA's study

In those instances where the NOAA consolidation study made major closure/consolidation recommendations that differed significantly from our recommendations, we presented our analyses that led to our differing conclusions. The significant departures from the NOAA study are the NOAA recommendations for the Northwest and Alaska Science Centers. Our detailed analyses of these centers are presented in Appendices D and E to the report.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
CHIEF FINANCIAL OFFICER/CHIEF ADMINISTRATIVE OFFICER

SEP 30 1997

MEMORANDUM FOR: Frank DeGeorge
Inspector General

FROM: Joseph T. Kammerer *J. Kammerer*

SUBJECT: OIG Draft Audit Report on NMFS
Laboratory Structure Should be
Streamlined, Report No. STL-8982-7-XXXX

Thank you for the opportunity to respond to the draft audit report concerning the streamlining of the National Marine Fisheries Service's (NMFS) Laboratory Structure. As you know, we are in agreement that a consolidation process offers excellent opportunities to upgrade the organization and to execute the NMFS science program, while reducing overhead costs associated with maintaining unneeded facilities. In response to guidance from Congress and from the National Oceanic and Atmospheric Administration (NOAA) management, NMFS conducted a review of its science programs and its facilities to determine whether it was possible to reduce the costs of maintaining and operating all of its existing facilities, and hence to put some of those resources into higher priority work. The review was completed in June 1996, and the results were updated in June 1997. Several recommendations resulted. I have attached a copy of that report for your reference.

We are pleased that you have reached the conclusion that "...in general, the NMFS laboratories are conducting high priority research in well-utilized facilities." As you know, this conclusion is similar to that routinely concluded by the NMFS leadership; scientists throughout the world who review, reference, and use our scientists' research results; the National Academy of Sciences for those activities they have reviewed; and courts in which challenges to our science are heard. Indeed, this same conclusion was most recently reached by the last NOAA Chief Scientist, Dr. Kathy Sullivan, the Under Secretary for Oceans and Atmosphere, Dr. D. James Baker in the NOAA Science Review and by a panel of external experts, including Dr. Robert Huggett, Dr. Kratch Semerjian, Professor John Magnuson, Dr. William Doubleday, Dr. Michael Reeve, and Professor Saul Salla, as recently as June 1996, in the "NMFS Laboratory Consolidation Study Report."



We are also pleased that you recognize that many of our "...facilities are greatly in need of repair..." It is difficult to imagine that anyone visiting our facility in Tiburon, California, for example, could not conclude the obvious -- the buildings are in danger of becoming a part of the San Francisco Bay.

We would question the validity of your conclusion "...that NMFS does not have a successful record of closing laboratories..." You provide no supporting data or information on this topic and we would suggest deleting this gratuitous conclusion (see Page 2 of your draft report).

There appears to be a recurrent inconsistency throughout the draft report that results in what we believe are overestimated Net Present Value (NPV) savings. In many cases, your recommendations include relocating programs from closed facilities to other locations. However, the cost/benefit analyses appear to be based upon the termination, either through reductions-in-force, retirement, or early retirement, of employees involved in the programs at "to be closed" facilities, i.e. no backfills of the vacated positions are contemplated. It would appear that you anticipate the continuation of valuable programs at other facilities without staff to conduct them. That type of situation is intolerable, especially in light of ever increasing legislative mandates and a declining work force. We, therefore, disagree with the conclusion that there would be no backfills, and thus savings in employee expenses, as facilities are closed and programs relocated.

We agree with some of your findings and recommendations and disagree with others. Our detailed response is attached.

Attachment

NOAA Response to the Office of Inspector General (OIG) Report:
NMFS Laboratory Structure Should Be Streamlined
Draft Audit Report No. STL-8982-7-XXXX

NORTHEAST FISHERIES SCIENCE CENTER

OIG Finding and Recommendation: WE RECOMMEND CLOSING THE MILFORD LABORATORY AND TRANSFERRING ITS PROGRAMS TO THE NEW JAMES J. HOWARD MARINE SCIENCES LABORATORY

NOAA Response: NOAA disagrees with the recommendation to close the Milford Laboratory and transfer its programs to the James J. Howard Marine Laboratory at Sandy Hook, New Jersey. We do not believe that savings of \$5,012,145 would be realized from implementing these actions. The report recommends one action, relocating all programs, yet the NPV calculations are based upon reductions in force and retiring most of the staff currently at Milford without backfilling the vacancies. It would be impossible to continue the programs now conducted at Milford, but relocated to Howard, without sufficient staff to do the work.

In addition, NOAA disagrees with the apparent, but internally inconsistent, conclusion that the programs conducted at Milford are of such low priority that they should be discontinued (as the NPV calculation suggests) or relocated (as the recommendation states). Aquaculture, the area in which research at Milford has historically and is now focusing, has recently been elevated in priority within NMFS and NOAA to a much higher level than when the data for the draft report were collected. It is no longer a low priority area for NMFS. A copy of the recently completed NOAA Fisheries Strategic Plan that reflects this higher priority is attached. This higher priority is the result of the recognition of the increasing importance of aquaculture globally and the increased attention being given to aquaculture development in the United States Exclusive Economic Zone. We would also bring to your attention that NOAA is currently drafting an updated policy on aquaculture for Dr. Baker's approval, and that NMFS has recently hired an aquaculture coordinator (at the GS-14 level). Therefore, the basis for the draft report's recommendation (that the Milford programs are of low priority) is no longer valid.

Given this change in priority, we would also bring to your attention the importance of the state, university, and federal synergy at Milford upon which we have and continue to rely on for conducting our important research there. You have noted the significance of these kinds of relationships and used them as a basis, in part, for recommending no changes at many of our facilities.

Finally, it makes no sense to disrupt the successful programs at Milford simply to take advantage of currently unused space at Howard. Instead, Milford should be maintained and use of space at Howard increased with increased full time equivalents (FTEs) in NMFS and leveraging of our partnerships with nearby universities in New Jersey.

SOUTHEAST FISHERIES SCIENCE CENTER

OIG Finding and Recommendation: IN THE SOUTHEAST FISHERIES SCIENCE CENTER, WE RECOMMEND CLOSING BOTH THE NATIONAL SEAFOOD INSPECTION LABORATORY (NSIL) AND THE OXFORD LABORATORY

National Seafood Inspection Laboratory

NOAA Response: NOAA does not agree with the recommendation to close the NSIL. However, NOAA does agree that many activities conducted by NSIL at the time of the audit should be discontinued. Since the audit was conducted, NMFS has moved to change NSIL's program focus away from seafood inspection program support and oversight given the decision to convert the inspection program into a Performance-Based Organization located within the Food and Drug Administration. While NSIL will need to continue to provide scientific oversight for the inspection program, as long as it is part of NMFS, NOAA agrees that NSIL should now stop providing direct services such as analytical testing for inspection program clients. However, NOAA believes that NSIL should continue to represent NMFS in key domestic and international food safety fora such as the National Advisory Committee for the Microbiological Criteria for Foods, the National Science and Technology Council's Committee on Health, Safety and Food and Codex Alimentarius. NMFS will continue to have a role in food safety whether or not it has an inspection program and will need to remain part of such organizations.

At the present time, NMFS is moving to reorient NSIL consistent with its capabilities to directly support the agency's fisheries management mission. The planning for this process began shortly after the NMFS reorganization last year when NSIL was placed within the newly created NMFS Headquarters Office of Sustainable Fisheries (Office). The Office intends to use NSIL's seafood science expertise and infrastructure in at least the following areas that are critical to the overall management of the nation's marine fishery resources:

1. Represent NMFS on the Executive Board of the Interstate Shellfish Sanitation Conference, a responsibility previously carried out by the NMFS Charleston Laboratory.
2. Coordinate the development of a national stock identification bank that will allow the development of management measures that can differentiate stocks within a single species based on their genetic profiles.
3. Coordinate the development and application of protocols dealing with the closing and reopening of fishery resources as a result of public health emergencies from such incidents as oil spills or toxic algal blooms.
4. Address seafood safety issues associated with the production of cultured seafood in the marine environment.

Therefore, rather than closing NSIL, NMFS is pursuing a strategy that will use NSIL's expertise and resources to address the agency's seafood safety responsibilities within the context of its fishery management mandates.

NOAA disagrees with the report's estimated benefits over a 5-year period.

Oxford Laboratory

The portion of your recommendation concerning the Oxford Laboratory is unclear. The draft report states on page 11, "The Oxford Laboratory should be closed..." Yet, on the same page the report says, "Therefore, we recommend that NMFS initiate action to transfer the bulk of its programmatic responsibilities to the state of Maryland." It would be problematic to close the laboratory and simultaneously expect the state to conduct the work currently occurring at the laboratory by both Maryland and NMFS. Therefore, NOAA disagrees with closing the laboratory. Further, NOAA disagrees that a federal presence at Oxford is inappropriate. However, NOAA does agree that transferring ownership of the facility to the state may generate some short-

term income if the state is financially able to purchase the property. This income, however, may be reduced by long-term costs associated with NMFS occupying space at the laboratory if the state were to charge NMFS for that space.

The Oxford facility is more correctly called the Oxford Cooperative Laboratory, and the major presence is the State of Maryland, although the ownership of the building is Federal. The NMFS Laboratory Consolidation Study recommended turning the facility over to the state but maintaining the presence of NMFS staff in priority research areas working in the Chesapeake Bay region. From a program management standpoint, the Southeast Fisheries Science Center (SEFSC) has staff in both owned and leased space and a decision in this area is not at issue here. The only programmatic issue is the recommendation to close the laboratory.

The draft report fails to recognize the value of State-Federal collocation in enhancing collaboration as is clearly demonstrated at other NMFS facilities. This is all the more important in Chesapeake Bay where both the State and NOAA are major players in the Ecosystem Restoration Effort. Oxford's close proximity to academic institutions (including an historically Black college at which the Laboratory's Branch Chief is an adjunct professor) also enhances the viability of the Federal presence.

Since transfer of the Oxford facility to the SEFSC there has been an aggressive effort to utilize resources effectively to address Chesapeake Bay region issues for which NOAA has a responsibility. A vessel has been obtained to work jointly with the State in the Bay. Area sea turtle, marine mammal and habitat restoration issues are among the highest NOAA priorities.

The value of the Federal presence at Oxford has become patently obvious in the recent outbreak of "killer algae" in the region. Congressional and NOAA leadership have made it clear that NOAA has a significant role to play in addressing this crisis. The NMFS staff at Oxford have not only been involved personally, but have been a conduit for rapid involvement of toxin and toxic algae specialists in the SEFSC. Their response, if any, would have been much slower absent the NMFS staff at Oxford.

Therefore, as long as NOAA has significant responsibilities in the Chesapeake Bay region and is expected to be a major player in the ecosystem restoration effort, it will be both programmatically efficient and cost effective to maintain a

Federal presence at Oxford: With this position in mind, we disagree with your estimated savings in personnel and Operation and Maintenance (O&M) costs. However, NOAA is unable to provide alternate estimates because of the short response period provided for responding to the draft report.

OIG Finding and Recommendation: WE ALSO ENVISION MOVING THE PROGRAMS AND PERSONNEL FROM THE BAY ST. LOUIS AND PANAMA CITY LABORATORIES INTO SPACE AT THE PASCAGOULA LABORATORY PREVIOUSLY OCCUPIED BY NSIL

Bay St. Louis Laboratory

NOAA Response: NOAA disagrees that the programs at the Bay St. Louis Laboratory should be moved to the Pascagoula Laboratory. The NMFS facility at the Stennis Space Center provides very high priority support in meeting NOAA Strategic Goals related to sustainable fisheries, habitat, and protected resources. The Stennis Space Center is a National Aeronautics and Space Administration (NASA) facility whose primary mission is the engineering and testing of Space Shuttle engines. The Center, by design, has evolved into a multi-Federal and state agency engineering and technology facility with a major collective mission to encourage and facilitate the exchange and transfer of technology to the resident agencies. It is unique in the world. The principal areas of benefit to NMFS include the Naval Research Laboratories, the NASA Applications Program, Environmental Protection Agency's Gulf of Mexico Program, and the Mississippi University system.

The NMFS facilities at Stennis include roughly 12,000 square feet of office and research space (computer rooms, etc.), a 275,000 gallon research tank, a large electronics laboratory, and extensive storage capabilities. There are eight NMFS FTEs assigned to Stennis. Major areas of work include remote sensing, resource survey data management, and engineering support to research and management activities of the Southeast Region. NMFS engineers and scientists at Stennis provide direct technical support for scientific equipment aboard the NOAA Ships OREGON II and CHAPMAN, and to numerous vessels chartered for scientific research (e.g., bycatch studies and fish tag and release research). Support of sophisticated acoustic systems aboard the CHAPMAN is especially critical to ensure calibrated measurements of fish abundance, which has been a high priority research

function of the Mississippi Laboratories for over a decade. Other support activities, to name a few, include state-of-the-art trawl monitoring systems, remote underwater imaging systems, plankton measurement systems, and fishing vessel monitoring systems.

Because of the accessibility of NASA remote sensing technologies at Stennis, the NMFS facility has led the agency in applications of this technology to fisheries. There have been several firsts at the NMFS facility because of the availability of this technology including satellite tracking of sea turtles and marine mammals, and fishing vessel monitoring systems. Also, the first remote measurements of hypoxia in the northern Gulf of Mexico and the first charts of sea grasses were made by the NMFS scientists at Stennis. Many of the very large and sophisticated oceanographic models developed and operated by the Naval Research Laboratories at Stennis are now finding applications to fisheries due to the efforts of the NMFS scientists, plus a host of other related technologies. The NMFS fisheries science organization at Stennis is not the only NOAA element at this facility -- the National Weather Services' National Data Buoy Center is also located at Stennis to take advantage of the wealth of technology that is available from NASA and the Naval Research Laboratories.

The NMFS organization at Stennis was initially integrated into the Mississippi Laboratories in the early 1980s. This has been an extremely successful union with substantial advances in a host of fisheries research and management capabilities. All administrative support of the Stennis facility is provided from Pascagoula and the Gear Research Division of the Mississippi Laboratories is managed from Stennis primarily because of the resident technology.

The \$257,000 5-year benefit estimated in the draft report is highly questionable given that space would have to be leased in Pascagoula to support the Stennis contingency, because NOAA disagrees with closing NSIL (and then there would be significant renovation costs involved). While somewhat less expensive space might be acquired, it would be impossible to duplicate the tank facility and the availability of a fully equipped electronics laboratory at less cost. Also, the remote sensing equipment at Stennis is tied into special transmission lines which allow the rapid transmission of satellite digital imagery. This would be a practical impossibility in Pascagoula, which would greatly increase the time and cost of processing satellite data for fishery applications.

NOAA is unable to provide information concerning costs and benefits at this time because of the very short period provided for responding the draft report.

The remote sensing and geographic information systems capabilities at Stennis are tailor-made to respond to the new Magnuson-Stevens Act requirements for mapping and monitoring of essential fishery habitat. Not having these capabilities would severely curtail the agency's ability to effectively deal with this new requirement, especially in the southeast region where coastal wetlands are so critical to the life cycle of so many important fishery resources (e.g., shrimp, groupers, and red drum). Additionally, NOAA's new focus on hypoxia in the northern Gulf would suffer significantly without day-to-day access to the remote sensing technologies offered at Stennis. The cost and time required to calibrate acoustic systems would greatly increase, and the ability to access the engineering technologies at Stennis to support underwater imaging systems and remotely operated vehicles would severely hamper gear bycatch studies and life history research related to reef fish species. The fishery scientists at Stennis directly manage most fishery-independent data collected from research and chartered vessels, which has been a major task. They are able to do this cost effectively due mainly to the ready availability of computer scientists through the shared on-site contract capabilities provided by NASA at Stennis. Being co-located with the Environmental Protection Agency's (EPA) Gulf of Mexico Program at Stennis is also a major advantage to NOAA as it allows for day-to-day coordination and a much improved understanding by EPA of the impact of environmental phenomena, such as hypoxia, on fisheries. This could be especially critical in the coming years with NOAA's new initiative on Gulf of Mexico hypoxia. And finally, a newly funded program to incorporate vessel monitoring systems into management and enforcement programs of the southeast region would suffer significantly because of the lack of the specialized engineering and computer software technologies available at Stennis.

The closure of the Bay St. Louis Laboratory at Stennis would be a serious mistake, with long-term and irreversible negative impacts on the research and management programs of the southeast region. Numerous other Federal agencies have located groups at Stennis for exactly the same reason the NMFS organization is there. The effective transfer of technology from one application to another is not something that can readily be done from a distance. It requires frequent and continuing contacts and communication which would be lost without the Stennis facility. Stennis is a unique facility in the world of technology. It is of benefit to NOAA, to NMFS, and to the general public, as it helps to ensure that the best of the available technologies at the least possible cost are applied to the many unique problems of fisheries research and management.

Panama City Laboratory

NOAA agrees that the high priority programs currently conducted at the Panama City Laboratory could be relocated, that income could be generated from the sale of the property, and that some potential increased NPV may be realized. However, NOAA disagrees with the magnitude of these increases estimated in the draft report because it is anticipated that any position vacancies that the relocation might create would be filled to continue conducting the recognized high priority research. Further, NOAA disagrees with relocating these programs to Pascagoula because NOAA disagrees with closing NSIL and secondly, because there is available space at the Galveston Laboratory to which personnel at the Panama City Laboratory could be moved.

NOAA is unable to provide any additional information concerning costs and benefits beyond that provided in the NMFS Laboratory Consolidation Study Report at this time.

Funds To Be Put To Better Use: The OIG draft report states that by implementing its recommendations, NOAA could put \$3.4 million of funds to better use over the next 2 years.

NOAA disagrees with the amount of funds to be put to better use due to incorrect assumptions reflected in the OIG's savings estimates. For example, if the Milford Laboratory was closed and its programs transferred to Sandy Hook, New Jersey as recommended, there would be no personnel savings because all programs would remain intact. However, the OIG's estimate of savings is based upon significant staff reductions which would, in effect, dismantle these programs. Another example is the recommended closure of the National Seafood Inspection Laboratory (which NOAA does not accept). With respect to the recommended transfer of programs at the Bay St. Louis and Panama City Laboratories, and the recommended closure of the Oxford Laboratory, we disagree with your estimated savings in personnel and O&M costs. However, NOAA is unable to provide alternate estimates within the time frame allowed for responding to the draft report.

ALASKA FISHERIES SCIENCE CENTER AND NORTHWEST FISHERIES SCIENCE CENTER

OIG Finding and Recommendation: IN THE ALASKA AND NORTHWEST FISHERIES SCIENCE CENTERS WE DETERMINED THAT OPTIONS INVOLVING (1) THE TRANSFER OF THE ALASKA CENTER'S PROGRAMS AT SAND POINT IN SEATTLE, WA TO THE PROPOSED FACILITY AT AUKE CAPE, AK, AND (2) THE TRANSFER OF NORTHWEST CENTER PROGRAMS AT MONTLAKE TO SAND POINT SHOULD NOT BE IMPLEMENTED

NOAA disagrees with the recommendation of no changes at this time with respect to some of the Alaska Fisheries Science Center personnel being relocated from Sand Point to the proposed Auke Cape facility. We would not propose to move the entire Alaska Center to Auke Cape. The anticipated disposition of programs currently at the Alaska Center was addressed in the NMFS Laboratory Consolidation Study Report dated June 1997 (Update). NOAA continues to believe that there are benefits to the actions identified in the NMFS report beyond the short-term costs. We are unable to comment further on our disagreement because the draft report provides inadequate detail on this issue.

NOAA continues to believe that there is merit to relocating programs and personnel from Montlake to Sand Point, if and only if, much of the Alaska Center is relocated to Alaska. However, NOAA recognizes that additional costs associated with some of the Montlake programs' equipment needs may require special attention.

SOUTHWEST FISHERIES SCIENCE CENTER

OIG Finding and Recommendation: IN THE SOUTHWEST FISHERIES SCIENCE CENTER, WE RECOMMEND VACATING THE TIBURON AND LA JOLLA LABORATORIES AND TRANSFERRING THEIR PROGRAMS AND PERSONNEL TO HONOLULU, SAND POINT, NEWPORT, AND THE PROPOSED SANTA CRUZ FACILITY. AS PART OF THIS RECOMMENDATION, WE ARE SUGGESTING THAT THE PROPOSED SANT CRUZ FACILITY BE EXPANDED TO ACCOMMODATE EXTRA PROGRAMS AND PERSONNEL

La Jolla Laboratory

NOAA Response: NOAA agrees with the recommendation to vacate the La Jolla facility and to distribute the programs and staff to other NMFS facilities with two exceptions, including:
(1) relocating the Antarctic program to the Alaska Center, and
(2) leaving the Santa Rosa staff in the current leased space (if sufficient space at Santa Cruz is available). NOAA disagrees

with relocating the Antarctic staff to Alaska because this activity can be outsourced. If it were, this may provide sufficient space at Santa Cruz to relocate staff from Santa Rosa and eliminate current costs associated with leasing space.

NOAA is not in a position at this time to agree or disagree with the conclusions concerning the stability of the La Jolla Laboratory. NMFS is currently contracting for a geotechnical analysis of the building's integrity that is expected to be awarded in the very near future.

NOAA is unable to provide any additional information concerning costs and benefits at this time because of the very short period provided for responding to the draft report.

Tiburon Laboratory

NOAA also agrees with the recommendation to close the Tiburon Laboratory and relocate the programs to Santa Cruz.