INTERIOR, ENVIRONMENT, AND RELATED AGENCIES APPROPRIATIONS FOR 2007

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

HOUSE OF REPRESENTATIVES

ONE HUNDRED NINTH CONGRESS

SECOND SESSION

SUBCOMMITTEE ON INTERIOR, ENVIRONMENT, AND RELATED AGENCIES

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PART 6

Printed for the use of the Committee on Appropriations

WEDNESDAY, MARCH 29, 2006.

SMITHSONIAN INSTITUTION

WITNESSES

SHEILA BURKE, DEPUTY SECRETARY, CHIEF OPERATING OFFICER, SMITHSONIAN INSTITUTION
DAVID L. EVANS, UNDER SECRETARY FOR SCIENCE, SMITHSONIAN INSTITUTION
BRUCE DAUER, DIRECTOR, OFFICE OF PLANNING, MANAGEMENT AND BUDGET, SMITHSONIAN INSTITUTION
JOHN BERRY, DIRECTOR, NATIONAL ZOOLOGICAL PARK, SMITHSONIAN INSTITUTION

OPENING REMARKS OF CHAIRMAN TAYLOR

Mr. TAYLOR. The subcommittee will come to order. Today, we welcome Sheila Burke, Deputy Secretary and Chief Operating Officer of the Smithsonian Institution. We look forward to talking with you today about the budget request for the Smithsonian Institution for Fiscal Year 2007.

The total budget for the Smithsonian is $644.4 million, an increase above the enacted level of about $30 million. This increase is primarily for fixed cost increases and for critical backlog maintenance needs. We look forward to working with you over the next few weeks to figure out what can be done, and what will assuredly be constraints in the 302(b) allocation for the Interior Bill. Your official statement will be made part of the record, and I will ask Mr. Moran if he would like to make a statement or an argument before we commence.

OPENING REMARKS OF CONGRESSMAN MORAN

Mr. MORAN. Well, it is an efficient meeting here, Mr. Chairman. I want to join you in welcoming Ms. Burke and her colleagues this morning.

The Smithsonian is one of the most priceless jewels that we have in our crown of collections and architecture, and attractions for the American citizens to enjoy. It brings so many people to Washington, and it gives us so much pride to have this in our capitol city, largely because of what the Smithsonian has to offer, and it is a difficult job to keep it first class and appealing and maintained in every way. I think a lot of us have been watching John Berry's ascendancy with great interest. He has got a great responsibility, and a very difficult role. Of course, as long as that little panda cub stays healthy, he is going to be very successful.

This is our first hearing on the Smithsonian in four years. A lot has changed, with the opening of two new museums, the new Udvar-Hazy Center at Dulles and of course, the American Indian Museum. But some of the problems that we talked about four years

ago are still present. The visits at the Smithsonian are about 25 percent less than they were four years ago, when we last had a hearing. The maintenance backlog for the Smithsonian has been validated by both the GAO and NAPA. It is in excess of $1.5 billion, but funding to address that backlog is only about 60 percent of what we are told is necessary, and it is less than half of what the GAO has recommended to bring it up to an acceptable level of maintenance. In private industry, they would be spending about twice what we are spending for maintenance cost.

There have been staffing reductions, and as a result, visitor services programs have been curtailed. And yet, there is constant pressure. As we discover more and more aspects of history and art, and the artifacts that reflect it, there is more and more demand for museums and exhibits. The aftermath, of course, is a brand new opportunity, really, to share those collections with the public.

That is kind of a panoply of our observations and concerns, Mr. Chairman, and we look forward to Ms. Burke's testimony, and appearance. Thank you for having her here.

Mr. TAYLOR. Thank you, Mr. Moran.

You know that in September 1814, the British, when they burned the Capitol, took two books from the Library of Congress back to England, and what they learned from those turned out to be a great deal, because 20 years later, Mr. Smithson repaid the U.S. with his bequest to establish the Smithsonian. And I'm glad they got so much out of it.

Mr. MORAN. Maybe we should have sent over more books to them. they didn't have to come over here and steal like that.

Mr. TAYLOR. The queen brought it back in 1991, and I asked her for the overdues.

We're anxious to hear from you. Please.

OPENING REMARKS OF MS. BURKE

Ms. BURKE. Thank you very much, Mr. Chairman and Mr. Moran. It is a great pleasure for us to be here again after so many years, and let me begin by thanking you and your staff. Although we have not been before you in four years, we have had a tremendous relationship with your staff, who have been enormously helpful to us over these years in helping us think through the challenges that we face, so we are very grateful for the time they have given us these past few years.

Since its founding 160 years ago, as you pointed out, Mr. Chairman, the Smithsonian has, in fact, worked hard to remain true to its mission, which is the increase and diffusion of knowledge, very much what James Smithson had in mind. Over that time, thanks to the generous support of the American public, and frankly, through the Administration, and really, through you, the Smithsonian has become, the world's largest museum and research complex.

Last year, we attracted more than 24 million visitors, which was, a 24 percent increase over the prior year. Although, as Mr. Moran has pointed out, we are still all working to recover from 9/11, where visitations to the Nation's capital, of course, dropped dramatically. Those who came to Washington came to see our many museums on the National Mall and many new exciting exhibitions,

not to mention the baby boom at the Zoo, which Mr. Moran mentioned, including the baby cheetahs, as well as, of course, Tai Shan, the star of the Zoo.

We continue to improve management at the Smithsonian, including the upgrading of our financial systems, creating a proactive maintenance program, and adopting the first ever strategic plan for science, which Dr. Dave Evans is able to talk with you about. We are also striving to improve the care of the National Collections, including digitalization of images. As Mr. Moran suggested, there are many who can not come to Washington, and we want to be sure that they have the opportunity to view the collections as well.

In 2006, we will open Phase One of Asia Trail of the National Zoo. The Donald W. Reynolds Center for American Art and Portraiture, which will be home to the Smithsonian American Art Museum and the National Portrait Gallery, will open on July the 1st of this year. Our museums and our exhibitions will continue to improve, and we hope attract the general public. But our scientific mission, perhaps not as well known as our museums, is just as important. Scientific expertise and leadership are at the core of the Smithsonian's reputation for excellence, and our 500 scientists are busy on an array of pressing issues, including how the Smithsonian can assist in helping to contain an avian flu outbreak.

The Smithsonian's reach has expanded exponentially by our website and our education and outreach program, including the Affiliations program. Our traveling exhibition service is the largest such service in the world, and reaches more than five million people across the country each year. We now have 50 exhibits on tour, which will go to about 250 locations around the country.

In sum, I believe we are making progress. Yet unfortunately, the Smithsonian is also an institution with a deteriorating infrastructure. We have buildings that range in age from brand new to nearly 160 years old. More than half of our buildings have problems with heating, air conditioning, electrical distribution systems, and the controls necessary to operate them. They have served well beyond their normal useful lifespans.

In April of 2005, a report of the Government Accounting Office, which Mr. Moran mentioned, made it clear that the Institution has a well-documented and compelling need for investment in facilities revitalization and in maintenance funding. The GAO indicated that $255 million per year for the next nine years, or a total of $2.3 billion, is needed to fix and maintain our facilities. That is clearly the most significant challenge that the 160-year-old institution faces.

But again, we believe we are improving, thanks to you and your commitment, and we very much appreciate the opportunity to talk with you this morning about these issues, and any other issues about which you are interested.

[Ms. Burke's formal statement and biography follows:]

House Interior Appropriations Subcommittee
March 29, 2006
Testimony of Sheila Burke, Deputy Secretary and Chief Operating Officer
Smithsonian Institution

For 160 years, the Smithsonian has remained true to its mission, "the increase and diffusion of knowledge." Over that time, thanks to the generous support of the American people through the Administration and the Congress, the Smithsonian has become the world's largest museum and research complex. The Smithsonian provides museum experiences supported by authoritative scholarship to connect Americans to their cultural heritage, and is an international leader in scientific research and exploration. The Smithsonian offers the world a picture of America and America a picture of the world.

The Smithsonian fiscal year 2007 budget request is $644.4 million ($537.4 million for salaries and expenses and $107 million for facilities capital). This funding level is nearly $30 million higher than the Institution's fiscal year 2006 appropriation.

Last year, we attracted more than 24 million visitors, a 24% increase over fiscal year 2004. During fiscal year 2005, millions of Americans enjoyed the enormous continuing success of the recently opened National Air and Space Museum's Steven F. Udvar-Hazy Center in Chantilly, Virginia, and the National Museum of the American Indian on the National Mall. To great acclaim, numerous exhibitions opened. A baby boom at the National Zoo attracted unprecedented numbers of visitors, both to the Zoo and the Zoo's website, to view nine baby cheetahs and the baby giant panda Tai Shan.

Some of the greatest works of art in this country—or the world—are at the Smithsonian. The Smithsonian's art museums, the Freer, the Sackler, the Hirshhorn Museum and Sculpture Garden, the National Museum of African Art, the Cooper-Hewitt, National Design Museum in New York City, the Smithsonian American Art Museum and its Renwick Gallery, and the National Portrait Gallery, collectively, are the third most visited art complex in the United States.

We have great plans for the future. In 2006, we'll open Phase I of the Asia Trail at the National Zoo. The Donald W. Reynolds Center for American Art and Portraiture, home to the Smithsonian American Art Museum and the Smithsonian's National Portrait Gallery, is set to open on July first. The Reynolds Center is located in the historic Patent Office Building, built in 1836, the third federal building ever constructed in Washington, D.C.

We're very excited that site selection for the Smithsonian's newest museum, its 19th, the National Museum of African American History and Culture was recently decided by the Board of Regents. It will be on the National Mall, adjacent to the Washington Monument and not far from the White House.

Another very important long-term project that we are focused on is the Ocean Science Initiative at our National Museum of Natural History, the largest natural history

museum in the world. The keystone of this more than $70 million project is an incredible exhibition—*Ocean Hall*, which is scheduled to open in 2008.

Scientific expertise and leadership are at the core of the Smithsonian's reputation for excellence. The Smithsonian's 500 scientists have pioneered efforts to explore the universe and improve our understanding of how the Earth and similar planets were formed. We are internationally recognized for our expertise in systematics, paleobiology, ecology, and biological conservation, and we are uniquely situated to explore the loss of biodiversity and to respond to governmental initiatives on climate change, tropical forest conservation, control of invasive species, and endangered species.

Diligence is needed to ensure that the Smithsonian does not fall behind other prestigious academic institutions in its ability to recruit, mentor, and retain the "next generation" of promising young scientists, and to procure the cutting-edge research equipment that is fundamental to its basic scientific mission. Increased financial support is vital to ensure that the Smithsonian retains its place among the world's pre-eminent scientific institutions as a leader in scientific disciplines of national importance.

Yet, unfortunately, the Smithsonian is also an institution with a severely deteriorated infrastructure, outdated technology, and many aged, outmoded exhibitions. The Smithsonian has buildings that range in age from brand new to nearly 160 years old. More than half of the buildings, and the heating, air-conditioning, and electrical distribution systems and controls required to operate them, have served well beyond their normal, useful life spans.

Although progress has been made, the April 2005 report of the Government Accountability Office (GAO) makes it clear that the Institution has a well-documented and compelling need for dramatic increases in facilities revitalization and maintenance funding. The GAO indicates that $255 million per year for the next 9 years, or a total of $2.3 billion, is needed to fix and maintain the Institution's facilities.

Today's challenge is to build on the Smithsonian's reputation, rebuild the physical plant, increase our visitation, and thereby expand the reach of a great and trusted institution.

The Smithsonian is a unique entity—an independent trust instrumentality—that depends on the federal Government for nearly 80 percent of its funding, including Government grants and contracts. Ever mindful of and grateful for this support from the American public, the Smithsonian will continue working with both OMB and Congress to provide each with the information necessary to justify their continued support. The Institution is also working to improve its performance in line with the President's Management Agenda, and has numerous initiatives under way to advance financial management (and just received a "green" or "success" mark on the scorecard for the first-quarter of fiscal 2006), use e-Government wherever possible, improve human capital planning and management, and more closely integrate budgeting with long-term performance goals.

The reach of everything the Smithsonian does, both the research and the museum activities, is expanded exponentially by websites and educational and outreach programs.

The Smithsonian Institution Traveling Exhibition Service is the largest traveling exhibition service in the world, and reaches more than five million people across the country every year. We now have 50 exhibits on tour, which will go to about 250 locations in the country this year.

We have been engaged in a major national outreach program, with 144 affiliates in 40 states, Panama, Puerto Rico, and Washington, D.C. In an attempt to present as many as possible of the Smithsonian's collections to the American public, we lend impressive objects to these local organizations.

The Smithsonian's electronic outreach has been equally impressive. Five years ago, we had half as many visits to our websites as physical visits to our museums. Now, visitation on the Web is more than 400 percent of our museum visitation, with nearly 110 million visits to our websites during FY 2005.

The Smithsonian agenda is ambitious but focused. Given these successes, concerns, and budget realities, the Smithsonian's first priority is funding to keep the Institution's museums in operation, collections safe, and research programs intact.

The Smithsonian's second priority is funding for security for the Institution's staff, visitors, collections, and facilities, and protection against terrorist actions.

The Smithsonian's third priority is to secure funding increases for National Academy of Public Administration- and Government Accountability Office-recommended activities, especially to address the Institution's critical facilities maintenance and revitalization and information technology needs.

The Smithsonian's fourth priority is funding for collections care to correct serious deficiencies in the storage, conservation, preservation, and accessibility of the National Collections.

Finally, the Institution's fifth priority is its new museums, and specifically the planning, fund raising, and management of the recently authorized National Museum of African American History and Culture.

The Smithsonian plays a vital role in our country's civic, educational, and cultural life. Using art, artifacts, history, and science, the Smithsonian tells a comprehensive story—America's story. What follows is our plan to meet the challenges we face as efficiently and effectively as possible.

FY 2007 Budget Request

For FY 2007, the Smithsonian's request is $644.4 million. It includes $537.4 million for Salaries and Expenses (S&E) and $107 million for Facilities Capital. This represents a

$20.8 million increase in S&E, largely for mandatory items such as pay, rent, and utility increases, and an $8.5 million increase in the Facilities Capital account.

Salaries and Expenses

This appropriation covers the cost of operating 19 Smithsonian museums, the National Zoo, and nine research centers, including such items as salaries for more than 4,000 federal staff; maintenance and repair of more than 600 buildings and structures; conservation and care of the 136 million items in the National Collections; and security for the millions of annual visitors, the staff, and the collections.

For FY 2007, the Institution requests $537.4 million in the Salaries and Expenses account, an increase of $20.8 million over FY 2006. Within the total increase requested, approximately 70 percent is attributable to mandatory costs for sustaining base operations (e.g., pay, utilities, rent, etc.), and the remainder is for priority program requirements of the Institution. These increases are partially offset by a one-time cost of $7.5 million associated with the re-opening of the National Portrait Gallery and the Smithsonian American Art Museum.

Mandatory Items: An increase of $19.8 million is requested for non-discretionary costs. Of this amount, $10.7 million funds salaries and related costs including the anticipated 2.2 percent pay raise for FY 2007. An amount of $9.1 million is requested for the increased costs of utilities, postage, rent, transit benefits, and other mandatory costs.

Security Requirements: The Institution requests an increase of $2.0 million in the budget to support additional security staffing for the re-opening of the Patent Office Building, now known as the Donald W. Reynolds Center for American Art and Portraiture.

Facilities Maintenance and Information Technology Needs: The budget includes an increase of $5 million, for a total of $51 million, bringing us closer to the minimum annual level of $94 million required to maintain the Smithsonian's facilities as recommended by the Government Accountability Office. Funds are also requested to support the implementation of the full Enterprise Resource Planning (ERP) system ($1.4 million); and to improve accounting and contract support ($0.2 million).

Collections Care: The FY 2007 request maintains current funding levels for care and maintenance of collections.

New Museums: The request maintains current funding levels for the National Museum of African American History and Culture.

Non-recurring Costs: The budget request includes a reduction of one-time costs associated with the 2006 re-opening of the Donald W. Reynolds Center for American Art and Portraiture, home to the Smithsonian American Art Museum and the Smithsonian's National Portrait Gallery (-$7.5 million).

Facilities Capital

The Facilities Capital program is essential to the Smithsonian's mission to serve the public. It funds facilities that preserve and present America's treasures and advance world-renowned research efforts. However, many years of insufficient investment in both facilities and maintenance have led to growing, widespread deterioration and increasingly impaired performance of the Institution's physical plant. This affects virtually everything we do.

The FY 2007 request for the Facilities Capital program is $107 million. This level is $8.5 million above the FY 2006 appropriation. Although the request is below the level that the National Academy of Public Administration and the Government Accountability Office recommended as an appropriate funding level to restore Smithsonian's facilities, many of the highest priority facilities needs are addressed. These funds are focused on improving the deteriorating condition of some of the oldest buildings at the Smithsonian and maintaining the current condition of other institutional facilities through systematic renewal and repair.

Revitalization: The FY 2007 request provides for continued revitalizations at the National Zoological Park ($16 million), the National Museum of American History ($13.5 million), and the National Museum of Natural History ($25.4 million). It also includes funds to replace the electrical systems at the National Air and Space Museum ($10 million) and to support the revitalization of other facilities ($26.2 million).

Construction: The request includes funds to complete construction of Pod 5, a code-compliant storage facility at the Museum Support Center in Suitland, Maryland, for the National Museum of Natural History's highly flammable collections stored in alcohol ($5.4 million).

Facilities Planning and Design: An amount of $10.5 million is included in the request to plan and design future projects. Among the projects to be addressed with this funding are the design of future components of the revitalization of the Natural History Building; renovation of the Museum Support Center's Pod 3; and design of the revitalization of the National Air and Space Museum. The funds will also provide for designs of numerous smaller revitalization projects and for comprehensive facilities master planning studies to inform future facilities decisions.

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Smithsonian Institution News

Office of Public Affairs

September 2005

Sheila P. Burke

Smithsonian Deputy Secretary and Chief Operating Officer

Sheila P. Burke is the Smithsonian's Deputy Secretary and Chief Operating Officer. She joined the Smithsonian in 2000 as Under Secretary for American Museums and National Programs. Prior to that, Burke was executive dean and lecturer in public policy at the John F. Kennedy School of Government at Harvard University in Cambridge, Mass.

In her current role as Deputy Secretary, Burke oversees the financial office, facilities and engineering and information technology, as well as the museums and organizations that reported to her as Under Secretary.

She served as the chief of staff to former Senate Majority Leader Bob Dole from 1986 to 1996 and was elected to serve as secretary of the Senate in 1995. Burke served as deputy chief of staff to the senate majority leader from 1985 to 1986, as deputy staff director of the Senate Committee on Finance from 1982 to 1985, and as a professional staff member of the committee from 1979 to 1982.

Burke is an adjunct faculty member of Georgetown University Public Policy Institute. She serves as an adjunct lecturer at the John F. Kennedy School of Government at Harvard University and is a fellow of the school's Malcolm Wiener Center for Social Policy. From 1980 to 1981, Burke was a research assistant at the Center for Health Policy and Management (now the Malcolm Wiener Center for Social Policy) at Harvard's Kennedy School of Government.

Burke currently serves as a member of the board of trustees of the University of San Francisco. She is a member of the Medicare Payment Advisory Commission (MedPAC); a member of the Institute of Medicine (IOM); chair of the board of trustees at the Kaiser Family Foundation, Palo Alto, Calif., and a member of the Kaiser Commission on the Future of Medicaid and Uninsured in Washington, D.C.; and a member of the board of AcademyHealth and the board of trustees of the American Board of Internal Medicine Foundation. She also serves on a number of corporate boards, including the Chubb Corporation and WellPoint Inc.

Burke, 55, is a native of San Francisco. She earned a master's degree in public administration from Harvard University in 1982 and a bachelor's degree in nursing from the University of San Francisco in 1973. In 1999, she was awarded an honorary doctorate in military medicine from the University of the Uniform Health Services.

Early in her career, she worked as a staff nurse (1974) in Berkeley, Calif.

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Ms. BURKE. Thank you, Mr. Chairman.

NATIONAL ZOOLOGICAL PARK—ACCREDITATION

Mr. TAYLOR. Thank you very much.

The National Zoo has gone through several years of criticism over animal management and care facilities. In 2003, this committee requested two science-based assessments of these issues from the National Academy of Sciences.

Can you describe in detail the progress that you've made to date and the most serious challenges that you have?

Ms. BURKE. Yes, sir. If I may, I would like to call on Dr. Dave Evans, who has helped manage the response to those reports.

Mr. EVANS. Mr. Chairman, thank you.

Yes, the Committee did call for two outside reports, and those reports have actually been very helpful. The National Academy of Sciences released a report on the management of the Zoo, which has really changed in a significant way many of the operational aspects of the Zoo, ultimately leading to the recent hiring of a new director who is continuing to keep us on the right track. We also had a series of reports done by the AZA, our accrediting agency, and a number of the issues that were identified by the AZA, were similarly identified by the NAS, providing us with a clear and well-documented roadmap of many things we need to do.

[Chart follows.]

National Academy of Sciences Recommendations for National Zoo

	Summary of finding	Completed On-Going
1	Training of animal keepers	✓
2	Management training for curatorial staff	✓
3,37	Performance measures, plans for animal care	✓
4,36	Clarify roles and responsibilities of animal care staff	✓
5	Perform situational analysis, action plan to achieve Strategic Plan goals	✓
7,8	Improve communications among and within departments	✓
9	Assess staff adherance to policies, procedures; provide training in communications.	✓
10	Involve staff in zoo community, professional relationships	✓
12	Improve, broaden recruitment strategies	✓
13	Establish methods for sharing knowledge across organization	✓
16	Assess HR needs and develop staffing plan	✓
17	Establish procedures for record keeping	✓
	Establish accountability for unprofessional actions	✓
18	Correct deficiencies in CRC vet records	✓
19	Track scheduled preventive care	✓
21	Coordinate animal health protocols between Rock Creek and CRC	✓
22	Fulfill IACUC responsibilities	✓
24	Establish record keeping standards at CRC consistent with Rock Creek	✓
27	Provide proactive health prevention services	✓
28	Enforce good safety practices	✓
29	Establish a strong zoonosis program	✓
32	Ensure communication among animal care staff regarding appropriate diets	✓
33	Evaluate diets to ensure appropriate to species	✓
34	Bridge research and clinical nutrition units	✓

	Summary of finding	In Progress	Partially Funded	Not Funded
6	Link Strategic Plan to facilities plan and collection plan	✓		
14	Assess barriers to learning and implement improvements	✓		
15	Establish efficient hiring processes	✓		
25	CRC should use same record keeping system as Rock Creek	✓		
26,31	Establish performance measures for pathology reports	✓		
35	Centralize commissary (see also capital list below for General Services Building Structural Repairs)	✓		
38	Ensure that IACUC conducts semi-annual inspections, program reviews, and corrections are made to findings	✓		
41	Provided training in recordkeeping and archiving	✓		
11	Accessible electronic storage of information	✓	✓	
39, 40	Implement Zoological Information System for comprehensive and shared record keeping system.	✓	✓	
42	Performance standards for recordkeeping developed for ZIMS	✓	✓	
43	Document pest management policies & procedures; IPM Contract not funded for entire facility	✓	✓	

The following NAS Recommendations are supported in the Facilities Capital Budget Plan, which includes $8 million for design and renovation for these projects in FY07 & 08.

35	General Services Bulding Structural Repair (USDA Commissary Finding)		✓	
30	Renovate Police Station (Will also correct the NAS finding of structural deficiencies in health clinic located in Police Station)		✓	
23	Replace Hay Storage Facility			✓

Mr. EVANS. The chart that we brought along here, over to my right, summarizes where we are on a variety of the findings that were made by, in this case, the National Academy of Sciences. There were, as you can see, in excess of 40 findings on the Zoo, and they range from things like training of animal keepers to establishing performance measures. For pathology reports, I picked those two out at random just to show the level of detail that was included in those reports. And roughly speaking, as you look at this chart you will see multiple checkmarks in the column to my right and going down this side, the recommendations of the Academy that have either been accomplished or are well underway. There are a few which remain outstanding. We have similarly taken a look at the report from the AZA, and as was widely reported, we were granted a full five-year reaccreditation by the AZA.

John, would you like to add anything to that?

Mr. BERRY. Mr. Chairman, I just would like to add a thanks to this committee for its support to the Castle, to the Secretary, and Sheila and Dave for providing the resources.

We have increased the number of veterinarians at the zoo. We have just hired a new full-time pathologist. So I believe we have the experience and expertise that can guarantee to you that we're going to provide high-quality animal care to every animal that is entrusted to us.

Mr. TAYLOR. The committee has learned from addressing critical backlog maintenance in the national parks that providing adequate funding in the operations account for cyclical maintenance is as critical as is maintaining major capital increase. Yet this funding for the Zoo was reduced this year.

Can you explain that decision?

Ms. BURKE. Mr. Chairman, the maintenance requirements, as we have planned, indicate that about a $94 million cost to the Institution is required for adequate maintenance. This year, we plan on spending approximately $51 million. The annual budget for the Zoo's maintenance is $6 million, of which a little less than $1 million per year has been spent on specific projects.

We have, in fact, over time, tried to increase that amount, as specific projects have been identified.

STRATEGIC PLAN FOR SCIENCE

Mr. TAYLOR. We are going to have a number of questions, and I may come back, but I want to move over into science. You recently completed a strategic plan for science. Can you describe the process and outcome, and how those results might change the way you prioritize and manage scientific research?

Ms. BURKE. Mr. Chairman, I will again ask Dr. Evans to respond. He led that effort at the Smithsonian, and convened a group of advisors external to the Institution to lead us through that process.

Mr. EVANS. Thank you, Mr. Chairman. When I arrived at the Smithsonian about three-and-a-half years ago, I found that there had never been, as far as we can tell, a strategic plan for science Institution-wide. Each of the different museums and research entities pursued their own agendas, pretty much, over their varying histories, some of them going back 150 or so years. It became ap-

parent, though, that in the current context—the context of doing science in the current world, science that is pursued at universities and national laboratories, and a variety of industrial sites—that we really needed to step back and take a perspective, analyze what it is that we do well, analyze what is done uniquely or specially at the Smithsonian, and concentrate our resources in those areas.

To do that, we drew together a group of scientists from across all of the organizations to discuss exactly those issues. We spent a period of time where they met with each other, where we met in plenary groups, and had a discussion on exactly those topics. I have to tell you, one of the interesting sidelights is we got a lot of Smithsonian scientists shaking their heads, and saying, "Gee, I did not know we did that here". That is a measure of how separate some of the parts of the organization were, and how interested many of them are in doing collective work.

The result of that was a short strategic plan. I believe there is a copy of it in the materials that we provided to you, and if not, we will surely bring them over. It identifies four thematic areas where the Smithsonian has particular expertise, ranging from the origins of the universe itself—recalling that the single largest part of the Smithsonian is actually our Astrophysical Observatory, with in excess of 900 employees, located in Cambridge, Massachusetts—narrowing down to looking at the formation of planets in our solar system, and more interestingly of late, the other solar systems, what it is that gives rise to planetary bodies, focusing down a little bit further to what is it that is responsible for the diversity of life that occurs surely on our planet, and quite possibly on other planets that we are now discovering. And then finally, our fourth thematic area, continuing that telescoping process, looks at the range of cultural diversity of the particular form of life that we are all most interested in, namely ourselves.

And so, looking back through the history of the Institution, you find that the anthropology area, the last one that I mentioned, the Smithsonian is largely responsible for establishing, and of course, it was the third Secretary, Samuel Langley who established the Astrophysical Observatory. Originally, it was an observatory where the Haupt Garden is now located, behind the Castle Building. So those four thematic areas form the framework of the things that we do and do well, and probably do better than anyone else, and on an ongoing basis, to get to the last part of your question, we use that strategic plan, which has a number of very specific goals and strategies in the pursuit of those topics, in making those decisions that we make centrally in the organization. We have some endowment resources, for example, and every year, we run a competitive process internally for the allocation of those resources. Reference to the specific goals and the strategic plan is required by the scientists when they make application for those funds. So we use it as a regular guide for management, to make funding decisions, and we use it as a guide as we pursue external funding, whether grant and contract funding from agencies, or philanthropic contributions. So it has formed a central part of the way we go forward in our science agenda.

SCIENTIFIC ILLITERACY

Mr. TAYLOR. You mentioned a word, and could you explain intellectual illiteracy. I know it pervades in so many areas, but I'd like you to explain it.

Mr. EVANS. One of the issues that an institution like the Smithsonian needs to confront is the general question of what I call scientific illiteracy. There have been a lot of studies of this. The President mentioned this issue in his Competitiveness Initiative that accompanied this year's budget request, but basically, what it gets to is not as much a matter of a particular issue or particular topic, but that we are not doing a very good job educating our children or ourselves about what the process of science is. It's not the details of a particular thing, but understanding how, what, where, and when a scientist tells you something, what should you, as a responsible citizen, do with that information? There are some wonderful examples that recently turned up at a graduation at Harvard College a few years ago. Folks were interviewed and asked to explain why here at Cambridge we observe seasons of the year, why do we have spring and winter? Many of the graduates answered with great authority but inaccurately. Phases of the moon, other simple phenomena about the physical world that we live in, are pretty disconnected from people's ordinary experience right now. Their ability to come up with scientific explanations for many of those phenomena is, unfortunately, low.

We live in a world that is dominated by problems that science hands us, solutions that science offers us, and we believe that some measure of improving scientific literacy is essential for us to function as a democratic form of government. The Smithsonian gets 24 million visitors, as you pointed out, sir, even in a bad year. We have four times that many who make extended visits to our website, and we have an incredible scientific capability. Given the public's attention, and given our scientific capabilities, we believe that we have an obligation to help with the informal education of our general visitors, and to help in school education programs, so people understand what science is about.

OUTDATED EXHIBITIONS

Mr. TAYLOR. But the humanities have the same problem——

Mr. EVANS. Oh, indeed they do. I am not trying to minimize anybody else; they most certainly do.

Mr. TAYLOR. Now, you are relied on by millions of people, including adults and students for scientific accuracy. And, of course, it brings up the question to me that exhibits in the Smithsonian are old, very old. How many exhibits contain inaccurate information because science has changed? Certainly areas of technology are just moving so fast it's almost impossible to keep an exhibit updated when new information is available.

Ms. BURKE. If I might speak, generally, sir, and then Dave can talk specifically about the Natural History Museum. This is true throughout the Institution, as you point out, both in the sciences, as well as generally. Our exhibits, in many cases, are quite outdated, both in the method of delivery, as well as in the content. I am not sure we could accurately tell you exactly how many cur-

rently have information that has been outdated. I can give you one small example, though. There is a computer in the Air and Space Museum that was used to indicate the sort of use of computers in space and technology. It is an old mainframe computer, and students now looking at it do not have a clue what, in fact, it is. But there is no question that in the process of renovating our museums and revitalizing our exhibits, we need to look throughout all of our museums, about how we present the information as well as how current it is given today's knowledge, both in science as well as in the humanities. But it is certainly true in Natural History and American History, and as well with all our of museums.

DIGITIZATION OF COLLECTIONS

Mr. TAYLOR. Which brings us to a topic: The institution came together last year and suggested getting together a group on digitization, because it is so important. And while we want people to visit Washington, and nothing replaces a tour of any of those museums on the Mall, a lot of information can be conveyed in digitization. A lot of places are able to digitize many of the assets, and make them available in an organized fashion for our teachers. We did this at the Library of Congress. We conducted a program; we've educated several thousand teachers in North Carolina and South Carolina. Mr. Moran, I think, has participated in the program in Virginia. I think that there are eight states that have participated in the program, and as broadband expands, people receive it that couldn't at one time. It's sufficient, but it is not preferable, because you need the rapid delivery function plus the expanded content to be able to really utilize this in education. It is expanding.

You had a comprehensive study on the Smithsonian collection that was published in April 2005 regarding digitization. Can you discuss that, and make some comments on that?

Ms. BURKE. Yes. For more than a decade, we have been digitizing information about the objects within the Smithsonian. As you know, we currently have about 136 million objects in the collection, objects as well as specimens, and about 85,000 cubic feet of archival materials, and about 1.5 million holdings in our library. We are not the Library of Congress, but we certainly have extraordinary holdings. To date, there are about 9.8 million automated records available. We have digital images of about 1.3 million of our objects, that have automated records, and about 3.5 million automated records, and about 600,000 digital images. That is, as you might imagine, a very small percentage of the entire collection.

We have, over time, and increasingly in recent years, begun to invest heavily in our web infrastructure and in digitization. Opportunities arise, for example, in the movement of the collections of the American Indian Museum from New York to Washington. It gave us the opportunity to digitize that collection and automate those records. Similarly, with the Air and Space Museum, as we have moved out of the Garber facility to Hazy, we took the opportunity to create digital images of the collections so they might be available. So, we are doing this over time. It is something that will require a number of years, as you suggest, Mr. Chairman, but it is something we are committed to doing.

The study that was completed last year further indicated that progress has been made. It, needless to say, requires a substantial investment in both equipment and time, and we have, over time, begun to do exactly that. But again, we have only begun to scratch the surface, in terms of what is available.

Mr. TAYLOR. Are you coordinating with other agencies like the Library of Congress, and do you utilize joint equipment, so the teachers don't have to go to different webs to get to it? The teacher has precious little time, so it could be in a central area, and then brought quickly into the area you are focusing on.

Ms. BURKE. Thanks to your leadership, Mr. Chairman. We have been in discussions with the Library of Congress. As you suggested, there is a Coordination Council that we are participating in, to look for opportunities for collaboration. In a number of areas, particularly in the science area, we are working with international and national sources to essentially make things available, and do them in a collaborative way, so they can be accessed through a variety of portals. Now, we use a number of commercial software products to manage our collections and our archives and library information, and they are, in fact, common. Increasingly, we are trying to make those available through our website and in collaborative relationships with other institutions, certainly the natural history museums across the country.

DIGITIZATION OF COLLECTIONS—BENEFITS TO SCHOOLS

Mr. TAYLOR. I think the committee would be certainly amenable to funding of that area because it does provide so much to rural schools and parts all around the country.

Ms. BURKE. Yes.

Mr. TAYLOR. The Library of Congress has been amazing, as we've gone back to sophomore, junior grades who get content from the Library of Congress, versus a textbook with maybe one small picture and a paragraph; and the wealth of almost 10 million items digitized there. So adding the Smithsonian and its collections—certainly not the whole collection——

Ms. BURKE. No, sir.

Mr. TAYLOR [continuing]. But a substantial product—would be worthwhile for our school systems. I will yield to Mr. Moran, and see if he has other questions. Mr. Moran.

Mr. MORAN. Well, first of all, Mr. Chairman, let me thank you, as well, for your leadership in making these original source documents available to students around the country. We have not nationalized the program, but it has been extraordinarily successful. It is because of your vision and creativity. I normally do not stroke the chairman like this, but you deserve it, and it is a legacy you will be leaving, Charles, and a very important one, so I thank you, and I think this is an excellent idea, to tie what the Library of Congress is doing with the Smithsonian. How wonderful to have that original source. It is inspiring. It makes it alive, makes it real, and rather than, as Charles says, just a little, you know, a caption and a picture, and it just does not register. So——

Ms. BURKE. If I might.

Mr. MORAN. Yes.

Ms. BURKE. In that instance, the Air and Space Museum is a good example. What they found was because the exhibitions were obviously collections, people are not actually able to go into the airplanes. One of the things that Jack Dailey, the Director of that Museum, decided to do when the move to Hazy occurred, was 360 degree digital images of all of the planes, so that you can go online when you are standing at one of the kiosks in the Museum, and go into the cockpit, so that you have a full impression of what that collection looks like, and as you suggest, children are enthralled, as are teachers, in being able to actually experience it, and not simply see a flat plate in a book.

Mr. MORAN. Yes, it creates an experience that is so much easier to recall intellectually than, for example, just the rote memory that we normally subject information.

Ms. BURKE. It brings it alive. No question.

SMITHSONIAN FUNDING NEEDS

Mr. MORAN. Yes. Thank you, Ms. Burke, and thank you for your leadership. You could have done just about anything you wanted to, and you have chosen to lead the Smithsonian with Mr. Small, and we thank you very much for what you are contributing to this Nation's treasure.

And Mr. Evans, I find myself wishing that I had brought a recorder, because what you said was so articulate and compelling, and I know it applies to the arts as well, about being able to take what we are learning from the sciences and exhibit it to the public. So much of this is publicly financed, or at least partially subsidized at our universities, at our laboratories, but unfortunately, it is a very small clique of people who can actually appreciate what it is that we are learning. As we push the frontiers of science and knowledge, we are not sharing it with the vast majority of the American public, and I do see a role that the Smithsonian can and should be playing.

John, we are pleased that you are taking over the Zoo. We will talk about that in a moment. I think the problem is lack of resources, and unfortunately, where you have the greatest lack is the most mundane part of your operation, and it is facilities maintenance. The General Accounting Office estimates you need over $2 billion over the next nine years, and the National Academy of Public Administration came up with a somewhat lesser estimate of your costs, but it was consistent, and both organizations did, I think, an indisputable analysis, and it is clear that we are underfunding the maintenance of our Smithsonian facilities.

Now, there is a significant increase in this budget over last year, and that is the good news. The bad news is it is only half of what is needed, and as we know, in the private sector, if you shortchange maintenance, you wind up with much higher costs, and it is the same thing as the human body. If you do not provide preventive wellness care, then eventually, you are going to have an acute illness, and it is going to be a lot more expensive.

ADMISSION FEES

So, let us talk a bit about revenue. Now, I want to say, first of all, that my line of question has not been approved or even re-

viewed by Mr. Dicks. So, I do not know that I speak for him, and I certainly do not speak for the minority party when I suggest this, but I personally cannot understand why we do not charge a fee. I know that it is a nice thing to be able to say we are the only museum system that does not charge the public, and the public is paying for it through tax money and all, but every year, it becomes more difficult to justify, when people will enjoy the Smithsonian, then go out and pay $50 for lunch alone. They have to pay $10 to $20 just to get to the Smithsonian, to fork over a buck for an adult, or half a buck for a child or senior citizen, is not asking a whole lot, and maybe we could even do it voluntarily. No one will be denied, but to have someone collecting a suggested contribution, even to inform the public what it would be used for. If you got 25 million visitors, just roughly, at a buck apiece, that is $25 million. You would probably let students in for free. We are going to have to figure out a way to generate revenue, and I do not think we are going to get it out of the White House. I would like you to respond to that, and then I want to ask you about the use of the endowment funds.

Ms. BURKE. Yes, sir. This is an issue, as you might imagine, that has arisen in the past, and which the Regents have talked about. We looked at this in 1986 and 1996, and most recently in 2002. The Regents considered this, the last discussion occurring in January of 2002.

As you might imagine, there are arguments both for and against. From the standpoint of the Regents, the issues that have arisen are the following. One, it could potentially put us at something of a competitive disadvantage. There is no other Federally supported museum or monument in the city, of course, that charges admission. There is some concern that, in fact, it might disproportionately hit those people that we are the most interested in bringing into the museums, that is families, that the experience of museums that have charged admissions that are of the size and complexity of ours, for example the British Museum, saw a dramatic reduction in the number of visitors when they introduced a fee, and in fact, have begun to withdraw that fee as a result. Four of our museums are prohibited by law from charging admission. It might also, to the extent that it decreases the number of people visiting the museum, have a direct impact on the revenues that we receive on the private side. Of course, we are dependent upon those revenues, through the restaurants and the shops and other facilities within the museums, to provide unencumbered or unrestricted trust moneys that we are then able to use to put into programs that are not supported by Federal appropriations.

And again, a voluntary fee is something we have certainly considered. There are currently donation boxes located within the museums, not as direct as a suggested admission fee, but we have considered that. Again, the question is whether or not it discourages participation, discourages families. One of the things that we are most concerned about is broadening our audience. We have been less successful with Latino or new immigrant families in coming into our institution, or with African-Americans.

There is also the concern about the message that it sends. One of the things that we very frequently hear from visitors to our mu-

seums is how extraordinarily excited they are by the fact that it is free, that it is a national asset, that it is available to the public, and that is one of the things that they consider most unique about the Smithsonian.

But again, as you suggest, there are certainly arguments on the other side, as well, that it could in fact be a source of revenues. The question is the balancing act. Does it reduce the revenues on the trust side, does it in fact decrease our visitorship, which we are only now beginning to build back up after 2001? But again, this is something the Regents have considered very seriously, sir, and I suspect that it will come up again.

Mr. MORAN. In the meantime, we are not meeting our maintenance expenses, and the Regents have some responsibility for doing that.

Ms. BURKE. They do.

Mr. MORAN. If they wanted to contribute the money to make it up out of their personal funds, that is one thing, but I do not think that is going to be sufficient. I actually feel fairly strongly. The arguments are well intentioned, it sounds like a bunch of liberal gobbledygook, to be honest with you. "Well, we want this to be free; people are so excited when they see it is for free. And we certainly do not want to discourage anybody from using it." In our day and age, the things that people buy of all demographic categories are——

Ms. BURKE. Your discretionary income.

Mr. MORAN. Yes. And so, to pay a buck to see a museum, I am inclined to think that if you receive a perception that if you are not paying anything for it, then that must be what it is worth. And the fact is, it is worth a heck of a lot more than people understand. So I do take issue with the Regents, and you can share that with them if you choose to.

Ms. BURKE. Yes, sir.

DECLINE IN VISITATION

Mr. MORAN. I am very much concerned over the reductions in visitations, and I know the answer to every question will be 9/11; but in 2003, you actually had 25 million people. In 2004, it dropped down to about 20 million people.

Ms. BURKE. Yes, sir.

Mr. MORAN. And it looks like it has improved significantly last year, except that we have two new museums, the American Indian Museum, and the museum out at Dulles Airport. So if you adjusted for them, visitations are down, plateauing.

Ms. BURKE. Actually, adjusting for those two, we would still be slightly up.

Mr. MORAN. All right. Well, I think that is a concern. I wonder if it is because we are not investing enough in maintenance, upkeep, and constant modernization. If this were a privately funded facility, you would be investing in that. And are we just trying to keep it new and exciting and welcoming. Any thoughts?

Ms. BURKE. We are as concerned as you are with respect to admissions, and the number of visitors that we have. In fact, there has been an increase in this last year, above the base, even for those existing museums.

Part of it, as you suggest, may well be the fact that some of the facilities are physically challenged, in terms of the condition, but also, the age of some of the exhibits, and the methods by which we present information. And one of the efforts on the part of the Regents and each of our museum directors is to seek additional private funding to allow us to invest in the renovation of the exhibits.

That is something that we are dependent upon private funds to do, as compared to public funds. Last year, for example, we raised approximately $168 million that was spent on renovation and updating of exhibits within the museums. We are looking for a variety, not only of different ways of presenting information, making them more interactive, getting rid of, for example, the sort of static exhibit that we experienced as children, to things that engage children more directly. We are looking at the Web. We are looking at teaching tools, so that we encourage teachers to prepare students to come. So we are looking at a variety of means to engage, to invest in how we present the information.

The renovation of the Mammal Hall in Natural History, the renovation of the Flight Gallery at the Air and Space Museum, the renovation of the interior of the American History Museum—all of that is essentially driven toward making the museums much more welcoming, and much more up to date in terms of presentation. The Asia Trail investments at the Zoo, that combine public and private moneys, is an attempt not only to present scientific information in an interesting way, but to make it physically more interesting to the individual visitor. So, we are well aware of the challenge. The fact that people can spend their time doing lots of other things, and it is why we are so concerned on both the private and public side, of combining Federal and private money. The public money, in terms of the physical infrastructure, and the private money, in terms of investment in the presentations and the exhibits themselves.

Mr. MORAN. Well, you get it, and Mr. Evans and Mr. Berry, I trust your budget officer gets it as well, but——

Ms. BURKE. Yes. He gets it.

ENDOWMENT INCOME

Mr. MORAN. But you do not have a lot to work with to accomplish that vision. One last area of questioning. What do you do with the income from your endowment?

Ms. BURKE. About two thirds of the income is restricted. Those are funds that are given specifically for particular programs, particular exhibits that are restricted by the donor upon giving them. So two-thirds of the money goes towards those restricted uses. In many cases, they are to support a particular program, a science program or an arts program. Approximately one third of those dollars goes towards programs that are either not funded by the Federal funds. For example, the Affiliations program and The Smithsonian Associates program that produces about 1,200 programs a year, are both funded with trust funds. The funds are also used for development staff, for a number of senior managers in the Institution. So the bulk of it is restricted use, and a small percentage is available to us for the programs that are not funded by Federal funds.

Mr. MORAN. My extraordinarily competent staff behind us, the minority staff on the Committee, is having heartburn over the fact that the Regents decided to invest some of the money in hedge funds. But it does not bother me, so I am not even going to ask the question. I think we need money desperately, and a whole lot of institutional funds are doing that, so I admire them for their initiative, and their little bit of risk-taking. So, thank you, Mr. Chairman.

Mr. TAYLOR. Thank you, Mr. Moran. Mr. Peterson.

NATIONAL ZOOLOGICAL PARK—FACILITIES SYSTEMS

Mr. PETERSON. Good morning, Ms. Burke.

Ms. BURKE. Good morning, sir.

Mr. PETERSON. In '97, after the fire at the Philadelphia Zoo, the Committee asked specifically about safety issues at the National Zoo. The response was that fire suppression and other health and safety needs had to be addressed. The budget request states that the current utility and fire protection infrastructure is inadequate. What is the total amount needed to replace these aging systems?

Mr. BERRY. Mr. Peterson, hi, I am John Berry, the Director of the National Zoo. I have been there six months.

Mr. PETERSON. Welcome.

Mr. BERRY. Thank you, sir.

[Chart follows:]

NZP Maintenance and Minor Repair Backlog

On an ongoing basis, $6.0 million is spent annually at the Zoo on maintenance. Of this amount, an average of $860,000 was spent annually on specific maintenance and minor repair (non-capital) projects between 2000 – 2006.

Year	# Projects	$ Value (millions)
FY 2000 – 2006	142	$6.0

- Known maintenance project requirements for the Zoo through FY 2011 total $36 million. The total for the Institution is $205 million.
- The FY 2007 budget request provides $1 million for specific Zoo maintenance projects.
- At this rate of funding, the Zoo requirement will be $31 million at the end of FY 2011.
- To eliminate the Zoo's project backlog by FY 2011 would take an additional $6 million a year.

Examples of unfunded priority maintenance projects include:

Zoo Wide	Fire Proofing	$	50,000
Boiler Room	Add Fire Sprinkler System	$	100,000
Zoo Wide	Repair Roads and Bridges	$	200,000
Front Royal	Repair High Voltage Distribution	$	100,000
Seals/Sea Lions	Replace Failed Chilled Water Piping	$	300,000
Zoo Wide	Repair Animal Pools	$	100,000
Invertebrates	Replace Chillers	$	600000
Zoo Wide	Emergency Generator Maintenance	$	25,000
Zoo Wide	Storm Drain Maintenance	$	25,000
Zoo Wide	High Voltage Distribution Maintenance	$	45,000
Small Mammal	Add Smoke Detection/Fire Alarm	$	50,000
Amazonia	Replace Sprinkler System	$	100,000
5 Buildings	Maintain Shake Roofs	$	50,000
Zoo Wide	Repair Bridges	$	100,000
Vet Hospital	Replace Chillers	$	200,000
Great Apes	Install Automatic Shift Doors	$	60,000
Bird House	Install Guard Rails along Road	$	20,000

Mr. BERRY. On this chart is a good description of that. Working with Mr. Brubaker and the folks at the Smithsonian, we have taken a look at the National Zoo's facility needs and prioritized them with a focus on life, health, and safety. There is no question that fire is one of our basic concerns. The Zoo is the second oldest zoo in the country, second only to Philadelphia, and dates to 1889. Unfortunately, a lot of our systems date to that period, too.

The water main system in the Zoo was put in in 1891, and it has been so mineralized that by the time it reaches the center of the Zoo, if, God forbid, we had a fire, we would have to close off water in all the other areas of the Zoo to build up enough pressure to run a fire hydrant in that portion of the Zoo. And so, when we try to prioritize those things, those are obviously the first areas of the backlog we want to go after, and that backlog, as has been identified, is approximately $36 million just for the smaller projects. For the larger, it is about $200 million, $225 to be exact, and as you can see on this list, this is just the infrastructure. This is electrical replacement, water, fire sprinklers. Most of our animal facilities, and our veterinary hospital, do not have fire sprinklers, and we need to correct that. That is our most urgent priority, and so we are going to be very careful about taking those resources that you give us, and making sure that we dedicate them specifically to life, health, safety.

[The information follows:]

NZP Facilities Revitalization Project Accomplishments and Projected Needs

Appropriations 2000-2006: $92.7 Million [1]	
Major Projects FY 2000 - 2006	Funded
Replace Perimeter Security Fence	✓
Construct Kids Farm	✓
Renovate MANE Building	✓
Replace Emergency Generator - Amazonia & Bird House	✓
Renew Roof & Exterior - Six Buildings	✓
Renew Pool & Life Support - Seals, Sea Lion, Beaver, Otter	✓
Replace Chillers at Seal/Sea Lion, Invertebrates	✓
Upgrade Male Elephant Holding & Install Elephant Restraint	✓
Install High Voltage Feeder for Upper Zoo	✓
Renovate Commissary Facility & Install Cooling Tower	✓
Repair Erosion North Road to Rock Creek	✓
Construct Asia Trail Phase 1	✓
Install Fire Protection Dorm & Conference Hall (FR)	✓

[1] Includes $19.3 million for partially funded projects.

NOTE: Projects are at NZP Rock Creek unless noted at Front Royal (FR)

Outyear Capital Need: $225.4 Million	Partially Funded ($69.4m)	Not Funded ($156.0m)
Projected Needs FY 2007-2016		
Asia Trail 2 Elephant Facility & Habitat	✓	
General Services Building Structural Repair (USDA finding)	✓	
Replace Water Mains throughout the Zoo	✓	
Replace Steam Lines throughout Lower Zoo	✓	
Renew Paving Parking Lots, Roads, & Visitor Pathways	✓	
Asbestos Removal & Lead Abatement Rock Creek & FR	✓	
Renew Façade & Roofs over 20 years old	✓	
Upgrade or Install New Emergency Generators	✓	
NZP Master Plan for Rock Creek & Front Royal	✓	
Renovate Police Station	✓	
Replace Water, Power & Telecom to Vet Hospital/ Research Area	✓	
Replace Storm & Sanitary Sewers, Electric & Telecom Utilities	✓	
Improve Olmsted Walk for Disabled Access		✓
Replace Hay Storage Facility (NAS finding)		✓
Install Fire Protection Sprinkler Systems		✓
Improve Fire Exits, Alarms, Notification, Separations, Detection		✓
Install Renewable Energy Systems Rock Creek & FR		✓
Replace Electric Substation		✓
Improve Services Infrastructure - Restrooms, Keeper Rooms		✓
Improve Animal Pools & Containment Systems		✓
Renovate Valley Marine Exhibits & Improve Accessibility		✓
Renovate Lower Bear & Rock Creek for Migratory Bird Habitat		✓
Install Fire Protection Sprinkler Systems (FR)		✓
Upgrade Sanitary Sewer & Waste Disposal (FR)		✓
Develop Stormwater Management Plan (FR)		✓
Upgrade Electrical & High Voltage Electrical System (FR)		✓
Upgrade Security & Provide Police Station (FR)		✓
Consolidate Maintenance Shops (FR)		✓

DISCOVERY OF OIL

Mr. PETERSON. Thank you. This is a question from Pennsylvania. In '09, we are going to be celebrating the discovery of oil, and based on the last time I spent at the facility, you really do not have a history of oil. Are we not to have one? Nothing changed America like oil, and let me just give you a commercial. I do not think there has ever been a better time for the oil companies to contribute and build the history of oil, and they are going to be flush for a while, and we need to create a history of oil.

Ms. BURKE. To be perfectly frank, sir, I do not think we have ever really thought about it in the sense of an event to celebrate. As you might imagine, there are things Lewis and Clark and a variety of other things that come to our attention, the celebration of Jamestown. That one, frankly, has not come to our attention, but it is certainly something that I am more than happy to talk with both the Director of the National History, as well as American History Museums, as to whether there is an opportunity there to educate. I mean, the purpose is to use it as an opportunity to educate about the history and the development of our country, and I will certainly raise it with both Cristian as well as Brent Glass, who are directors of our museums.

Mr. PETERSON. I know Brent personally.

Ms. BURKE. Yes. I was going to say, you have, I suspect, a willing participant in Brent Glass, who in fact, worked at the Pennsylvania Historical Society before he came to us.

Mr. PETERSON. I guess I am astounded that this is not on anybody's radar.

Ms. BURKE. It is not.

Mr. PETERSON. What impacted the world more than oil, and what is impacting us more today? The availability of energy is America's number one problem, and it all started in 1859 in Titusville, Pennsylvania, and we drilled the first oil well.

Ms. BURKE. Again, sir, it is a perfectly legitimate question. I do not know the answer, but I am certainly happy to talk with both Brent and Cristian.

ENHANCING MUSEUM SHOP SALES

Mr. PETERSON. Okay. I will just say one more thing. I would urge the Institution to look at their gift shops and restaurants as potential. It would seem to me there would be all kinds of things that could be purchased. Not costly, but things that deal with the history of America, replicas and things that would make sense to have available to make money on. A development or promotion company could make a fortune in the Smithsonian if they were allowed to sell products that related to what people saw. I just think you need to get creative in letting people take a little bit of history home with them, look at your gift shops as a real profit center. The American public would be spending money, taking home a little of our history. Think about it.

Ms. BURKE. You raise a very important point, sir, and one about which we are quite sensitive. Currently, we have about $30 million of revenue on an annual basis as a result of the shops and restaurants located in our museums, but it is clear that we needed to

re-look at the kinds of products and the way they were presented, and we have begun to do that. The investment in the American Indian Museum, the most recent example in both the shop and the restaurant, have proven enormously successful, far greater than we expected. One of the things that Brent Glass is doing at American History, and Cristian at Natural History is looking at how the shops are presented, what in fact we might offer the public in those shops. As we look at the renovation of the interior of the American History Museum, Brent is working with our Smithsonian Business Ventures folks to look at the product development, to track the collections, so that people can take a little bit of American history home with them.

So you were absolutely correct, sir, and it is a source of funds for us today, and one we would like to see increase, because they are discretionary to museums. We can invest those in programs. They are unrestricted money, so they are very important to us. So it is something certainly well worth our spending time on.

INTERNET CONNECTIVITY

Mr. PETERSON. How easy is it for schools to be connected to you?

Ms. BURKE. It depends on the museum. Increasingly, much easier than it used to be. Some of the museums are currently more adept than others. For example, schools throughout northern Virginia and increasingly across the country can connect directly to the Air and Space Museum. Increasingly our museums, the Patent Office Building, the old Patent Office, now the Donald W. Reynolds Center, with the American Art Museum and the Portrait Gallery, will have active Web sites, so that you can do active tours. Similarly, with American History. Increasingly, teacher's guides and other materials are available online. We had approximately 100 million visitors to our Web sites last year. Many are students and teachers who are preparing their students and using our teaching guides.

So again, it is increasing in each of our museums as they bring IT into their systems and renovate their IT systems. It's an increasingly important thing to us.

We have a Web site, smithsonianeducation.org, where you can go directly in and look at all the teachers' guides and materials available. As we do new exhibits, increasingly we are asking for teacher and family guides to be prepared, whether its the American Presidency or the Hall of Transportation, so that people can prepare themselves or use the information offline.

So we are much more aggressive than we ever were in terms of the ability to access through the computer for people at a distance preparing a trip, or, in fact, who are never able to visit us.

Mr. PETERSON. Thank you.

Ms. BURKE. You're welcome. Thank you.

REPORT FROM THE INSPECTOR GENERAL

Mr. TAYLOR. Thank you, Mr. Peterson.

A recent report from the Inspector General's Office regarding controls over cash management and banking activities identified three internal control weaknesses that could expose the Institution

to fraudulent transactions and overpayments and affect the reliability of the information in its financial systems.

Could you comment on these findings?

Ms. BURKE. Thank you, sir.

We are working with the I.G.'s office. Our own director of finance, Alice Maroni, as well as Bruce's office and Andy Zino, who is our senior finance officer, are working closely with Debra Ritt, our I.G., putting in place controls, so these issues are addressed.

We agreed with many of the issues that Debra raised and are working to address them.

PATENT OFFICE BUILDING COST OVERRUN

Mr. TAYLOR. What is the cost overrun on the Patent Office building due to the changes to the courtyard canopy and south central staircase?

Ms. BURKE. The Federal commitment, in fact, did not increase. The budget was $166 million, and that is the extent of the Federal dollars. The remaining costs are being borne on the private side.

The estimated increase in cost as a result of the changes that we were asked to make by the National Capital Planning Commission we estimate to be somewhere in the area of $25 million to $30 million. That's a combination both of the delay as a result of the disapproval of the design, as well as the requirement to replace the steps and to do a number of other interventions directed by the NCPC. So approximately $25 million to $30 million of additional cost.

SALE OF THE VICTOR BUILDING

Mr. TAYLOR. The Victor Building sale: What made you decide to sell it, and how did you use those funds?

Ms. BURKE. One of the things that, Mr. Chairman, is needed over time is to carefully assess our real estate holdings, and whether or not, in fact, it makes sense for us financially to retain and manage them. The Victor building was purchased in 1999, in a time when Washington was not an area that was sought after. It was somewhat challenged. What occurred to us during the early 2000s and certainly in 2005, is that it had become the epicenter for innovation and investment for the city, and as a result real estate values had increased substantially. We saw the opportunity with that building to essentially recover that investment and, perhaps gain from the sale to get out of the business of owning that building and managing it, and to place our staff in, perhaps, areas that were somewhat less expensive from a real estate standpoint. And so, the decision was made to sell the building. We did so. The net gain from the sale was approximately $59 million. Approximately $25 to $30 million of that amount is being used to assist efforts in the Reynolds Center, to cover some of the costs of the changes we were required to make. The remaining amount is going into the trust endowment to be invested. Those funds, of course, are used to support those activities that are not supported by the Federal Government. So it essentially goes back to the endowment for earnings, that then give us assets to spend on trust-funded activities.

VISITATION AT THE NEW MUSEUMS

Mr. TAYLOR. What were the projected visitation and actual visitation numbers for the two newest Smithsonian museums—the American Indian Museum on the Mall and the Air and Space Museum at Dulles?

Ms. BURKE. One caveat, sir, if I might: these estimates were done prior to 2001, and it is at best an inexact science. With respect to Hazy, the other thing that was assumed at the time of the estimate was that there would be a rail service to Dulles, that the corridor would have available a subway system. The estimate at the time that it was made was approximately 1.5 to 1.6 million visitors to Hazy, but last year, we had 1.2 million visitors, somewhat short of the minimum that we expected. With respect to NMAI, the estimate was 3 to 4 million. In the first full year, it had 2.2 million visitors. I might say that is not dramatically different than was experienced with the Holocaust Museum that estimated about 2 million visitors in its first full year. It had, I think, about a 1.5 million that year.

NEW MUSEUMS

Mr. TAYLOR. We all saw, I think, a bill to create a Latino museum.

Where we have a problem with the parks, generally, is that often we get people very enthusiastic about creating large projects in the hundreds of millions of dollars. In the meantime, they even say, "We'll come forward and pledge a great deal of money." When the smoke clears, we neither have the money pledged, not the visitation, but we do have enormous expenditure both in construction and in maintenance.

Are we pandering? You know, I would like to have a large bust of Jim Moran for his leadership, but we may not be able to afford the cost. Can we do a better job getting key lessons put inside—a great collection of people who made up America, rather than dedicating individual museums and then having to maintain them and pay for the maintenance as well as the construction?

Ms. BURKE. A couple of points, Mr. Chairman. One, I think in their wisdom, the Congress has, with respect to recent museums, required that substantial private money go into the construction. In the case of Hazy, it was entirely private money. With respect to American Indian, it was about two-thirds Federal, one third private. In respect to African-American, it would be half, essentially half private, half public. But certainly, you raise a very important point. One of the concerns we have is that all of our museums should be fully representative of the American public, and in the issues that they present to the public. So irrespective of whether the Congress, in its wisdom, decides to create an additional museum, it is incumbent upon all of our museums, to service a broad population, whether it is American History, whether it is a Museum of Natural History. The Congress made a decision, both with respect to American Indian and African-American, to create free-standing museums, but I think that does not lessen the responsibility that we have to reflect the broad population in our museums.

NATIONAL ZOOLOGICAL PARK—CONSERVATION RESEARCH CENTER

Mr. TAYLOR. I could not agree more.

Our mission shouldn't be to Balkanize our population. The great strength of this country is the amalgamation of a whole plethora of populations who've come in.

It doesn't take from the culture and the heritage to be able to show that inside the main museum. When you start breaking it apart, you seem to be leaning in that direction, whether its intention or not.

Mr. Wolf had a question on Front Royal Conservation Research Center.

Several years ago, the Smithsonian approached the committee about closing the Conservation Research Center at Front Royal, Virginia. This was after significant funds were made available for all the backlog maintenance and so forth.

What is the current position on these facilities?

Ms. BURKE. The current position is that the Zoo's Conservation Research Center at Front Royal, Virginia, is alive and well. There is a great deal of work going into how, in fact, it can work with, and support the work that occurs at the Zoo here in Washington, D.C.; that they are collaborative programs. Efforts are being made to find external funding as well for research and conservation work that occurs at Front Royal. But it is fully occupied and operational and we expect it will remain so.

NATIONAL ZOOLOGICAL PARK—ACCREDITATION

Mr. MORAN. If you could pull off getting the Smithsonian fully participating in Adventures of the American Mind, I think we should call it the Charles Taylor Adventures of the American Mind Program. Personally, in all seriousness, that would be a very appropriate legacy.

I wanted to ask you about the Zoo because the Zoo has gotten a lot of criticism—some bad rap, some with some substantiation behind it—over the last several years. The criticism has been directed at animal care and also the maintenance of its facilities. This committee requested two science-based studies by the National Academy of Sciences to be conducted. I want to ask you, Ms. Burke, what are you doing to fulfill the requirements that were laid out in the report by the NAS and are we fully prepared and confident we will meet the accreditation standards in 2008?

Ms. BURKE. Let me answer the last question first. It is an absolute yes. We are prepared to commit whatever resources necessary to achieve that accreditation. I believe we have, in selecting John Berry, chosen a terrific leader, who has already in the short time he has been there, shown enormous commitment individually, but also enthusiasm and commitment to making this the best zoo in the world. So I think absolutely we will meet the standards of accreditation. With respect to the Castle support for the Zoo, which is, I believe, is the question you are asking: from approximately 2000 to 2006 the National Zoo received approximately $289 million from our overall appropriation. As you might imagine, each year we go through the very difficult process, as do you, among all of the priorities we have before us, among our 19 museums and re-

search programs, of allocating our resources. We try to do so on the best available knowledge, based on what we believe to be an appropriate set of priorities in terms of safety and a variety of other things. The Zoo is absolutely a high priority for us, for the Secretary and for myself. That is both in respect to capital facilities money as well as with respect to repairs, and we are prepared, whether it is security or capital improvements, to invest what is needed to bring the Zoo to the state to which it needs to be brought.

Additionally, there is tremendous effort being made to raise private money for the Zoo and we are supporting John in his very enthusiastic outreach to the public to raise private money. We are absolutely committed to supporting John in the priorities that he sets and placing the Zoo at the very highest end of our priorities in terms of the allocation of our limited resources.

NATIONAL ZOOLOGICAL PARK—MAINTENANCE BUDGET

Mr. MORAN. I appreciate that, and it is the answer that I would like to hear. I am told there was not a specific amount in 2006 for Zoo maintenance. What did we put into Zoo maintenance in 2006?

Ms. BURKE. I do not think we ear-marked that, but in fact, as we do our maintenance request, we do not ear-mark. We essentially ask for money and then allocate it once it is received, so there is a base amount that is spent on the Zoo every year, $6 million for maintenance.

Mr. MORAN. It is $6 million every year?

Ms. BURKE. Every year, the annual Zoo budget for maintenance is $6 million, of which a little less than $1 million has been spent on very specific projects. The balance essentially supports the salaries and the Zoo's HVAC contract and a variety of other things. We know there is about $36 million worth of projects that need to be done at the Zoo, and you see those reflected in the charts that are before you, sir. Each year, we ask for additional funds, but there is a base commitment to maintenance that is included in the budget.

Mr. MORAN. Well, the information I am given is that the operations account for cyclical maintenance for the Zoo was reduced this year.

Ms. BURKE. Again, I think there is an analysis that takes place every year that looks at priorities. And cyclical maintenance, there is the investment that includes an HVAC contract, which is of course cyclical maintenance, which is part of the Zoo's budget, but each year, sir, we look at, for example, the list of 142 projects between 2000 and 2006 that were done at the Zoo, valued at about $6 million. Each year, we are presented by our facilities staff with a long list of maintenance projects throughout the entire institution and its 600 buildings, and each year, value those based on their priority for life safety and risk.

Each year, a decision is made as to how much is allocated to each program. This year, that is about $1 million in projects for the Zoo above its base maintenance funding, so there is a combination of ongoing and new projects. There is commitment every year for cyclical maintenance, and each year there is a project list that is prioritized, and this year it was about $1 million. So there is an

ongoing commitment to maintenance, but then there are these additional issues that arise that one wants to prioritize, so both of those things occur. In some years, for example, events at the Air and Space Museum take priority. We may also have additional resources remaining at the end of the fiscal year, and we will very often commit new resources to the Zoo or other priorities at the end of the year, so we try to free up money as well.

Mr. MORAN. Again, our extraordinarily excellent staff has shared with me an executive summary of your own report, and it says "In conclusion, an infusion of at least $250 million capital improvements phased over this decade is required to correct the advanced deterioration, and a tripling of the annual maintenance budget to approximately $12 million per year is needed to prevent the continued downward spiral of the infrastructure. Even if the facilities were replaced today, the current low level of maintenance funding would allow the ongoing slide into disrepair that time and use impose. This requirement could exceed $300 million if deterioration continues unchecked." And that, of course, is the phenomenon we talked about that things can become much more expensive if they are not maintained on a regular basis. Is this consistent with your budget request?

Ms. BURKE. Yes and no. It is certainly consistent in that each year we ask for additional maintenance money. This year, we have $51 million. What we would really like is $94 million. Each year we ask for additional funds, and of course, each year we negotiate with OMB as to what we are permitted to request. So it is consistent in our initial request; it is consistent in terms of our priorities. And each year is a negotiation as to how much OMB allows us to request. But there is no question that our goal is to get to about $94 million institution-wide in maintenance funding. We are at $51 million this year. Each year, you can be assured that we will come back to you and ask for more maintenance money and be happy to receive it. That is certainly a priority for us for the reasons you suggest.

SMITHSONIAN TRAVELING EXHIBITIONS

Mr. MORAN. I appreciate that. I think we are all sensitive to the scrutiny that is being applied to the Zoo particularly. The Post has found an opportunity to fill a good many of its pages with troubles at the Zoo, and of course, it elicits a great deal of intellectual and emotional response on the part of the reading public, so I think you share our concern, not just from the standpoint of the public perception, but we do want it to be a world-class facility. We do want it to be well-maintained; we do want the animals to be well-cared for. If they are not, we are going to hear about it. The elephants are a case in point. I am not going to get into the elephants because there is any number of areas that we could get into. I could go on and talk for another five minutes while Mr. Dicks collects his thoughts, but because he is so quick-witted——

Mr. DICKS. Since I have been on the committee for 30 years.

Mr. MORAN [continuing]. I think you could probably come up with some questions without a whole lot of my filibustering, so at this point, Mr. Chairman, I will go back to you, and perhaps Mr. Dicks has some further questions.

Mr. TAYLOR. Certainly.

We'll look after the elephants, by the way.

Mr. MORAN. And we'll take care of the donkeys.

Ms. BURKE. And we love them both.

Mr. TAYLOR. I want to ask another question, too, about the traveling exhibits. Tell us a little about how much it costs overall and what kind of attendance we have in the traveling exhibits.

Ms. BURKE. There are, this year, projected to be approximately 50 of them, and they will visit approximately 209 venues. On average, we have four to five million people across the country who take advantage of our traveling exhibition service. It is funded with trust money as well as by fees that are paid by the museums that bring our exhibits in. I will ask Bruce to remind me of the total budget for SITES, the Smithsonian Traveling Exhibitions Service. As I correctly noted, 50 are planned for 2006. They will be in partnership with 143 museums and 100,000 teachers who are teaching the programs. SITES currently receives approximately $4 million in Federal funds and approximately $1 million in trust funds, and as I said, they also bring in fees.

NATIONAL ZOOLOGICAL PARK—FACILITIES

Mr. DICKS. Thank you, Mr. Chairman. I appreciate the astuteness of Sheila Burke here and John and everyone else. John, can I ask you a question? The facilities at the Zoo, what kind of condition are they in? What do we need to do as an administration and Congress to make sure that we have good, solid facilities and we replace the buildings and structures that need to be replaced? What have you thought about that?

Mr. BERRY. Thank you, Mr. Dicks. I appreciate that we've discussed this a little bit, but if I could, the second chart I think is a good summary of the issue.

Since I've come on board we have worked—and before, even, Dave laid the groundwork so this could all be done very carefully. We've gone back and looked at all of our maintenance, construction and backlog issues through a filter of life, health and safety: What's the most urgent in terms of animal safety, the public safety and visitor safety and health?

What you see here is what you have very kindly funded from the year 2000 and 2006, over $93 million. A lot of critical things. We just opened, for example, a brand new commissary facility, which is a food facility, which feeds all the animals in the Zoo. We welcome you to come visit. It's so wonderful, we could even use it as a backup for our surgical facilities; it's very impressive.

But what remains to be done is very significant, and that's as you see in the outyears, in terms of basic life, health, safety, over $225 million worth of projects. These go from replacing water lines, sprinklers in buildings—these are not glamorous things—replacing transformers. Our electrical transformer boxes are still using fuses; we're one of the largest power systems in the city still on that basis.

So we have a number of basic infrastructure needs that we have prioritized here, and are going to be working with you over the course of the next years.

One thing, I know, Mr. Dicks, is we've worked over the years from a number of different angles. I can promise you if you give us the resources and you give the resources to the Smithsonian, we will spend them wisely. We will not fritter them away on anything that isn't directly related to resolving these issues, so that we can resolve the life-health-safety issues.

Mr. DICKS. Do you think you make sure the planning of the Zoo's future is realistic, that it's based on existing fiscal realities? Can we do this? And are you going to have to raise some money in the private sector to do this?

Mr. BERRY. There's no question the private sector, Mr. Dicks, is going to be a key component of it. But when you look at the $225 million—these are large projects. Replacing the whole water system in the Zoo; that's going to be a multimillion-dollar project, probably about $30 million. The maintenance projects are small projects, ranging from $50,000 to $100,000, replacing leaking roofs, replacing cracked sidewalks, things like that.

Right now in the budget, through the budget process and the constraints, there's $1 million requested in the President's budget for maintenance projects, but you look at what the need is—an additional $6 million per year.

Mr. DICKS. Why doesn't OMB understand that?

Mr. BERRY. Well, that is not just us talking, that's the National Academy of Public Administration and it's in the review by the National Academy of Sciences.

Our facilities people have done a very careful analysis—we have a $36 million backlog of maintenance projects.

Mr. DICKS. There's only $1 million for those unfunded priority maintenance projects? And what's that add up to there, that list?

Mr. BERRY. It would be $6 million—the total need for just this year for normal, regular maintenance projects.

Mr. DICKS. $6 million.

Mr. BERRY. It would be $6 million.

Mr. DICKS. And you've got $1 million.

Mr. BERRY. We've got $1 million. It would be every year ongoing to deal with the backlog, which right now is $36 million.

Mr. DICKS. So you need $6 million a year to really keep up?

Mr. BERRY. Right, just maintenance.

Mr. DICKS. You can talk. You seem to be doing a very effective job back there.

Ms. BURKE. I think what Nell is reminding John, there is both ongoing maintenance here as well as specific capital projects. So for the ongoing maintenance, an additional $6 million would allow us to deal with the maintenance backlog. But there are also particular capital projects, big projects that require funds in addition to that. So it's a combination of maintenance money and facilities capital money.

Mr. DICKS. The ones with the checks, that is $69.4 million?

Ms. BURKE. Those are partially funded, sir. A balance of $69.4 million is required to complete them.

Mr. DICKS. And then there is $156 million that are needed, but not funded. So none of these are funded?

Ms. BURKE. They're not fully funded.

Mr. DICKS. Are you going to have an initiative? Are you going to put together a plan that will cover those not funded as well?

Mr. BERRY. We'll be working very carefully. The Castle has been incredibly supportive, and Dave and Sheila and the Secretary. And now that we have been able to do this prioritization of this focus, I believe the budget process that goes forward is going to really reflect the urgency of a number of these.

Mr. DICKS. Staff reminds me that there's a $2 billion backlog at the Smithsonian as an entity.

Mr. BERRY. This is part of it.

Ms. BURKE. This is part of it.

Mr. BERRY. This is just only a slice.

Ms. BURKE. As you might imagine, the Zoo is a high priority. In that $2.3 billion there are other high priorities in terms of backlog projects and unfunded requirements, so we look at the Zoo in that context. So there is, as you might imagine, a variety of issues.

NATIONAL ZOOLOGICAL PARK—PRIVATIZATION

Mr. DICKS. Does your plan envision privatization of any of the Zoo's operations as a way to finance construction costs?

Mr. BERRY. I believe, Mr. Dicks, we're fully exploring active partnerships. One of my jobs is clearly fund raising, and that's got to be a very critical element.

Mr. DICKS. You've got a lot of background in that area.

Mr. BERRY. And we're looking at where we can bring partners—corporate, major foundations, major donors—who can help us to accomplish this.

But we're also going to look to do just what Mr. Peterson observed earlier, in terms of retailing and restaurants. We believe that we can do a lot better job, and we're going to. And that's going to also increase the revenues that we'll be able to put to assist in some of these capital things.

I was going to mention to Mr. Peterson, when he was talking about retailing, I'm modeling today one of the products we sell at the Zoo.

Mr. DICKS. A tie. That's very attractive.

Mr. BERRY. We think that's certainly one area that can produce and help us with revenue.

Ms. BURKE. Mr. Dicks, the direct answer to the privatization question: No, we have no intention of privatizing any aspect of the Zoo. But we are certainly actively looking, as John suggests, for partnerships that allow us to seek support from foundations and others to assist us in our work.

HEDGE FUNDS

Mr. DICKS. I was very surprised to read in the regents' report for January that the Smithsonian investment committee was committed to a more aggressive investment strategy using hedge-related types of investments.

When we asked CRS for definitions for hedge-type investments, they described it as "essentially unregulated mutual funds, with the best-known engaging in high-risk speculations in markets around the world. This includes investing in stocks, bonds and

many other assets, including foreign currencies, precious metals, commodities and derivatives."

Systemic risk emerged as the major policy issue raised by the hedge funds. To many of us, this sounds a lot like taking the family piggy bank to the track.

Can you tell the committee why hedge fund investments are appropriate for an institution like the Smithsonian? That's like investing in the commodities market.

Ms. BURKE. Mr. Dicks, as has been suggested, the Regents quite recently made a decision to diversify the portfolio for the endowment. The endowment is approximately $779 million, and while it has met its average return goal over the last 10 years, over the last five and last year we did not; we only achieved a real return of about——

Mr. DICKS. Yes, but the market's been very——

Ms. BURKE. The market has fluctuated, as you might imagine. And one of the things that we seek is essentially a long-term investment that provides a stable source of funds.

Mr. DICKS. By going to hedge funds?

Ms. BURKE. Well, what our advisers have suggested, and this is true——

Mr. DICKS. Who are your advisers?

Ms. BURKE. We seek counsel from a variety of folks, including the Regents and a number of members of the Regents who are quite——

Mr. DICKS. Have you paid for professional advice on this?

Ms. BURKE. Yes, sir, we have. We have outside advisers, firms—Cambridge Associates, for example, is among them—traditional advisers that are used by foundations, that are used by other endowments such as Harvard, Stanford, a variety of large endowments. And what they have suggested is that diversification is what is critical to endowments and investments over the long term.

We are very traditional and really quite conservative.

Currently only 12 percent of our total is invested in hedge funds. At the outside, they would expect no more than 20 percent of assets to go to the hedge fund. But the goal was to look for diversification.

Mr. DICKS. You have already done this?

Ms. BURKE. We began doing this in December, sir. This is quite recent.

Mr. DICKS. How are your first three months?

Ms. BURKE. Our first three months are relatively good.

Mr. DICKS. Yes, the market has been up.

Ms. BURKE. It has been. We are currently in five hedge fund investments for a total of $100 million. The average allocation per manager is about $20 million. Again, we want some diversification but we are by nature quite conservative and quite careful about the endowment, and will certainly continue to do so. This is not an unusual strategy. It is certainly one that is used by, as I suggest, endowments of similar size, and much larger endowments by both nonprofit foundations as well as universities.

So this is not a strategy that we came to without a great deal of thought. We came to it only very recently—essentially a decision in the fall of last year.

We are coming in, frankly, much later than many others, and so we have been carefully observing this. And again, it is for diversification, but we are taking great care.

REALISTIC PROGNOSIS FOR FEDERAL FUNDING

Mr. DICKS. I have to wonder what the implications are of the numbers we have been discussing today. The long-term future of the Smithsonian, we can argue about the details, but the basics seem pretty clear: visitation is down 25 percent and does not seem to be likely to recover substantially in the near future. Many of your facilities are deteriorating badly, and we at best are only able to provide about two-thirds of what our experts at NAPA and GAO tell us is required to address the facility problem. Routine maintenance is funded at 50 percent, as we discussed, of the industry standard. Staffing has declined by 25 percent in a decade and you have had to curtail visitor services. There is constant pressure for new museums at a time when we cannot maintain what we have. Several restructuring proposals for the Smithsonian to save money have been rejected by the Congress, but we hope for the modest improvement in the appropriations picture for this subcommittee, a realist prognosis for federal funding for the Smithsonian over the next few years; it seems unlikely to dramatically change. That is a pretty grim picture.

Ms. BURKE. It is, sir, in some respects, but not in others. We are working to do things smarter. As you suggest, we have made a number of efforts in restructuring our staff and rethinking the way we do things, and deciding what it is that is mission-centric and those things that are extraneous and that we can essentially stop doing in order to commit ourselves to our fundamental mission. There has been a commitment to raising private funds to assist us in supporting our public programming and redoing the exhibits. We have in the last five years raised far more than had been raised in all of the prior years of the Smithsonian existence. Last year alone, we raised $168 million in private funds that are largely to support programmatic activities that we can no longer count on the federal government to support or that ought to be supported by private funds.

So we are well aware of the challenges. We are doing the best that we can to manage those assets and wisely invest our assets and prioritize in terms of the things that we need to do. We have put in place a workforce planning process that makes much tougher decisions about how we allocate our resources in terms of salary. We sought and received the ability to do a buyout, which we did, and we were able to commit those resources that we save by 222 staff choosing that buyout. We chose not to rehire about 175 of those.

ADDRESSING SMITHSONIAN FIXED COSTS

Mr. DICKS. But can you provide the services? This is the same thing that is happening across the board. This is happening at the Park Service because the budgets are not covering fixed costs, increases, pay raises.

Ms. BURKE. There are things that we cannot do any longer——

Mr. DICKS. Is this going to continue? Has it stabilized?

Ms. BURKE. It has not stabilized. Again, each year, as we are called on to absorb pay raises that are not fully funded or to deal with——

Mr. DICKS. You have no choice but to cut something in order to make the money available——

Ms. BURKE. That is correct, sir.

Mr. DICKS [continuing]. Which we decided was not acceptable in the parks.

Ms. BURKE. Correct.

Mr. DICKS. At some point, we have to stabilize this, or there will be a sign like we had in Seattle in 1970: "Will the last person out of town turn off the lights?" You know, turn off the lights at the Smithsonian.

Ms. BURKE. We take seriously that challenge and are working with your staff and others to look at opportunities to do things smarter and better and, frankly, to do fewer things.

Mr. DICKS. You are going to have to go out and raise more money in the private sector to increase the endowment and maybe get hot on the hedge funds to be able to cover your fixed cost.

Ms. BURKE. Right. We get our fixed costs.

Mr. DICKS. Including the whole Congressional pay raise?

Ms. BURKE. This year we did. In prior years, we did not.

Mr. DICKS. In prior years, you did not.

Ms. BURKE. That is correct.

Mr. DICKS. You are going to get the whole 3.1 or whatever the pay raise is this year?

Ms. BURKE. Yes, sir.

Mr. DICKS. Well, that is good. I am glad to hear that. What about the next year and the next year?

INCREASED UTILITIES COSTS

Ms. BURKE. That remains, each year, a challenge. And, unfortunately, one of the things we are facing this year, as I suspect you are, is an increase in utility costs. We are about to see a $10 million increase in our utilities, which are not increased in our budget.

Mr. DICKS. You ought to get some alternative energy like solar or things of that nature.

Ms. BURKE. We have some fixed costs, and each year some surprise occurs that we have to adjust for.

Mr. DICKS. You are using most of the money from the endowment for programmatic uses——

Ms. BURKE. Yes, sir.

Mr. DICKS [continuing]. Not for O and M. It is hard to get people to raise money for O and M.

Ms. BURKE. It is hard to raise money for toilets. There is no question about it. People tend to want to support programs, to support exhibits. It is very difficult to raise private money for operation expenses or buildings. That is correct.

Mr. DICKS. Well, do your best. We will try to help. It is a tough year; our budget has been cut, as you know, in terms of the Interior appropriations bill. EPA has been cut $6.6 million and Interior's been cut $1.2 million over the last six years.

So we've taken a real hit. I mean, we're not even keeping up, so we're just trying to rearrange the deck chairs.

Ms. BURKE. We are doing the same thing.

Mr. DICKS. Yes. I mean, it's not good. But we'll do our best to try and help.

Ms. BURKE. Thank you.

Mr. DICKS. Thank you, Mr. Chairman.

Mr. TAYLOR. Thank you, Mr. Dicks. Voting is starting, but let me say to the Deputy Secretary and the staff, we certainly appreciate the fine presentation you made and that you answered a number of questions; you've brought to our attention a number of things that need to be done.

And we'll be struggling with this problem. We have some recommendations and we'll be developing those as we move ahead.

Ms. BURKE. Thank you, Mr. Chairman, very much.

Mr. TAYLOR. Thank you.

Committee is now adjourned.

House Committee on Appropriations
Subcommittee on Interior, Environment and Related Agencies

Fiscal Year 2007 Smithsonian Institution Budget Hearing
Questions for the Record

March 29, 2006

ADDITIONAL COMMITTEE QUESTIONS

NATIONAL ZOOLOGICAL PARK

Question 1. The National Zoo has gone through several difficult years of criticism over animal management and care at its facilities. In 2003, this Committee requested two science-based assessments of these issues by the National Academy of Sciences. Can you describe in detail the progress made to date and the most serious challenges yet to be addressed?

Answer: The National Academy report Animal Care and Management at the National Zoo: Final Report of January 2005 reported that the staff had implemented an enormous number of positive changes in the short amount of time since their interim report was issued February 2004. They did issue 43 recommendations for improvements in training, record keeping, communications, clarification of roles and responsibilities. The status of the recommendations is indicated on the table following this question and answer.

While the Zoo continues to emphasize these issues in daily operations and performance plans, there are two major challenges that are not easily resolved. One is the implementation of the Zoological Information Management System that zoos across the country as well as internationally are collaborating on to modernize and integrate our animal records. Funding received by the coordinating organization, International Species Information System, has supported most of the R&D work but is not enough to complete this effort, test the system, and train the users. Zoos, foundations, and the Federal government have met over half of the goal of $10 million to completely implement this important zoo management tool that incorporates keeper, transaction, clinical, pathology and other key animal records.

The second critical issue continues to be facility infrastructure. A current outstanding USDA finding to correct the structural foundation of the Commissary facility (in the Zoo's General Services Building) requires major capital design and construction funds. Design funds are included in the FY2007 request. Similarly, the Institution has addressed an NAS recommendation by including funds for construction of a hay storage facility, in the FY 2007 request.

National Academy of Sciences Recommendations for National Zoo

	Summary of finding	Completed On-Going
1	Training of animal keepers	✓
2	Management training for curatorial staff	✓
3,37	Performance measures, plans for animal care	✓
4,38	Clarify roles and responsibilities of animal care staff	✓
5	Perform situational analysis, action plan to achieve Strategic Plan goals	✓
7,8	Improve communications among and within departments	✓
9	Assess staff adherance to policies, procedures; provide training in communications.	•
10	Involve staff in zoo community, professional relationships	✓
12	Improve, broaden recruitment strategies	✓
13	Establish methods for sharing knowledge across organization	✓
16	Assess HR needs and develop staffing plan	✓
17	Establish procedures for record keeping	✓
	Establish accountability for unprofessional actions	✓
18	Correct deficiencies in CRC vet records	✓
19	Track scheduled preventive care	✓
21	Coordinate animal health protocols between Rock Creek and CRC	✓
22	Fulfill IACUC responsibilities	✓
24	Establish record keeping standards at CRC consistent with Rock Creek	✓
27	Provide proactive health prevention services	✓
28	Enforce good safety practices	✓
29	Establish a strong zoonosis program	✓
32	Ensure communication among animal care staff regarding appropriate diets	•
33	Evaluate diets to ensure appropriate to species	✓
34	Bridge research and clinical nutrition units	✓

	Summary of finding	In Progress	Partially Funded	Not Funded
6	Link Strategic Plan to facilities plan and collection plan	✓		
14	Assess barriers to learning and implement improvements	✓		
15	Establish efficient hiring processes	✓		
25	CRC should use same record keeping system as Rock Creek	✓		
26,31	Establish performance measures for pathology reports	✓		
35	Centralize commissary (see also capital list below for General Services Building Structural Repairs)	•		
36	Ensure that IACUC conducts semi-annual inspections, program reviews, and corrections are made to findings	•		
41	Provided training in recordkeeping and archiving	✓		
11	Accessible electronic storage of information	✓	✓	
39, 40	Implement Zoological Information System for comprehensive and shared record keeping system.	•	•	
42	Performance standards for recordkeeping developed for ZIMS	✓	✓	
43	Document pest management policies & procedures; IPM Contract not funded for entire facility	•	•	

The following NAS Recommendations are supported in the Facilities Capital Budget Plan, which includes $8 million for design and renovation for these projects in FY07 & 08.

35	General Services Bulding Structural Repair (USDA Commissary Finding)		✓	
30	Renovate Police Station (Will also correct the NAS finding of structural deficiencies in health clinic located in Police Station)		✓	
23	Replace Hay Storage Facility			✓

Question 2. One of the key recommendations involves renovation and construction of safe animal facilities and the development of a comprehensive strategic plan. How much progress have you made in these two areas?

Answer: Significant progress has been made in improving existing animal facilities to meet basic animal welfare requirements. Of particular note are new roofs for the Small Mammal House, Elephant House, Amazonia, Reptile House and Ape House, improving lighting conditions for the animals as well as eliminating serious water leakage. Significant repairs to the Seal and Sea Lion pools have reduced water leakage and replaced rockwork. A new chiller system for these pools will ensure temperature controls meet appropriate standards in a dependable and more efficient manner. Completion of Asia Trail (phase 1) in September 2006 will move the sloth bears from a seriously out-of-date exhibit built in 1910 with some upgrades in 1978 and unsafe keeper access, to a new state-of-the art exhibit at the main entrance off Connecticut Avenue. They are currently housed in a temporary location as their original exhibit, built in the 1890s, was condemned in 2004 before we could complete their new habitat. The Institution will award the first increment of construction funds this fiscal year to renew the elephant facility, built in the 1930's. The current facility, while meeting basic welfare standards, does not provide adequate opportunities for modern methods of enrichment, indoor community space for these social animals, or modern features for safe access and care by keepers and veterinarians. Our on-going maintenance work and master plan will continue to be implemented to address the most serious animal facility concerns with the funding provided.

The Zoo's Strategic Plan, a process that included input from Zoo staff, Friends of the National Zoo members, our boards, and the public, was completed after the appointment of the new Director, John Berry. Copies have been provided to the Committee.

Question 3. According to a recent Washington Post article, your draft strategic plan calls for a 10 year vision that would involve major renovations of the aging infrastructure "from top to bottom." Most of these structures are upwards of 100 years old and in desperate need of repair. I assume from reading this article that the leadership of the Smithsonian has made this commitment to revitalize Zoo facilities beyond Asia I and II?

Answer: The Smithsonian's capital program plan contains over $62 million from FY 2008 through FY 2011 for revitalization projects at the Zoo. This demonstrates the Institution's commitment to revitalizing Zoo facilities beyond Asia I and Asia II.

Question 4. This Committee has learned from addressing critical backlog maintenance issues in the National Parks that providing adequate funding in the operations account for "cyclic" maintenance is as critical as major capital repairs, yet this funding for the Zoo was reduced this year. Can you explain that decision?

Answer: Adequate funding for routine ("cyclic") maintenance and minor repairs is at least as critical as funding for major capital repairs (revitalization). For this reason, the Institution restructured the facilities Salaries and Expenses budget in FY 2004 to separate

facilities maintenance from facilities operations. The process to set priorities for maintenance projects encompasses the entire Institution. The amount of funding currently allocated to the Zoo for maintenance projects is essentially the same as allocated at this time last year. It is hoped, however, that like FY 2005, additional funds will be freed up before the end of the fiscal year and additional projects will be funded. All Priority 1 projects at the Zoo were funded as well as all Priority 1 projects for the rest of the Institution.

It should also be noted that the FY 2007 request contains a $5 million increase for facilities maintenance. Some of this increase will benefit the Zoo.

Question 5. In fiscal year 1997, after the fire at the Philadelphia Zoo, this Committee asked the Smithsonian specifically about safety issues at the National Zoo. The response was that fire suppression and other health and safety needs had been addressed. This budget request states that "the current utility and fire-protection infrastructure is totally inadequate to meet the needs of the Zoo and to protect and support its animals." What is the total amount needed to replace these aging utilities?

Answer: Following the Philadelphia zoo fire, the Institution reprogrammed funds from other projects to install a central fire monitoring system at the Rock Creek facility to relay alarms to the Zoo police station via radio. Radio-linked smoke detectors, heat detectors and relay panels were installed campus-wide, and buildings with hard-wired detection systems were modified to make them compatible with the new radio-linked system. The radio detection system filled the single most significant gap in the Zoo's fire protection system at the time. Since then, the Zoo has upgraded the water supply that serves the hydrants, giving them the basic capacity to fight a fire if it occurs, and is currently designing new water mains to the Veterinary Hospital and install water main and hydrants at the Bird House in preparation for installing sprinkler systems. However, many buildings are not up to current codes for fire detection, suppression, and emergency egress. Some do not have automatic fire suppression systems such as sprinklers, and others have only partial coverage. The Zoo has developed a fire protection master plan which outlines and sets priorities for completing all the work required to bring the Rock Creek campus up to the Smithsonian standard of fire protection over the next five years. The Institution estimates that the total cost of upgrading the Zoo's fire protection systems is approximately $19 million, including related utility work such as upgrading the water main serving the lower end of the Zoo and installing emergency generators. This total does not include work that will be completed as part of major renovation projects such as Asia Trail II: Elephant Trails, which will totally replace all systems in the Elephant House, to include installation of up to date fire protection systems

Question 6. Your budget request includes $1 million for infrastructure needs at the Zoo. Does this adequately address the most critical utility needs?

Answer: The $1 million requested for FY 2007 will address fire protection requirements at the Veterinary Hospital and implement fire stop measures throughout the Rock Creek facilities, as well as improve fire systems at the Front Royal site. A number of critical

infrastructure needs remain to be met at both sites, including: replacing the water main to the lower zoo; replacing water, power and communications service to the Veterinary Hospital and Research building; replacing the electrical substation and upgrading electrical, steam, plumbing and mechanical systems throughout the Rock Creek site; installing or replacing emergency generators at Rock Creek and Front Royal; and improving sewage disposal and storm water management at Front Royal. This work will be accomplished as part of the comprehensive revitalization of Zoo facilities, and is estimated to cost in excess of $60 million over the next five to ten years. This figure includes the $19 million in fire and life safety work mentioned in the previous answer.

Question 7. What is the critical health and safety need for S&E maintenance at the Zoo?

Answer: The Institution does not expect that maintenance funding will be sufficient to complete all this work in FY 2007, but the remainder will be prioritized along with other Institutional requirements in the Institution's five-year maintenance program.

Below is a list of the highest priority critical health and safety needs for S&E maintenance at the Zoo:

Location	Facility	Project Title	($000)
DC - Rock Creek	NZP	Add smoke detection / fire alarm **Small Mammal**	50
DC - Rock Creek	NZP	Fire Proofing METR Zoo Wide	50
DC - Rock Creek	NZP	Replace piping for Seals/Sea Lions life support systems	300
DC - Rock Creek	NZP	Replace drain line at Lower Bears moat	30
Front Royal, VA	CRC	Scrape & Repaint wooden gables & doors on barns	20
DC - Rock Creek	NZP	Convert manual shift doors to hydraulic at Great Apes	60
DC - Rock Creek	NZP	Replace fencing at the Bird House	40
Front Royal, VA	CRC	Replace Gutters & fascia	20
Front Royal, VA	CRC	Fence Maintenance/Repair	100
DC - Rock Creek	NZP	Replace Chillers **Invertebrate Exhibit**	600
DC - Rock	NZP	Replace skimmer **Sea Lion** building	10

Creek			
DC - Rock Creek	NZP	Humidifier and Automate **Bird House**	30
DC - Rock Creek	NZP	Replace filter media **Sea/Lion** 6 filters	75
Front Royal, VA	CRC	Sewer/Storm Drain Repair	30
Front Royal, VA	CRC	Lead Paint Abatement	100
Front Royal, VA	CRC	Repair High voltage distribution	100
DC - Rock Creek	NZP	Veterinary Hospital Magnetic door holders METR	100
DC - Rock Creek	NZP	Backflow & PR Valve Maintenance & Repair **Zoo-Wide**	15
DC - Rock Creek	NZP	Backflow preventors **General Service**	15
DC - Rock Creek	NZP	Replace overhead crane **Necropsy**	10
DC - Rock Creek	NZP	Replace rusted out Conduits **Amazonia**	50
DC - Rock Creek	NZP	Replace Railing **Amazonia**	41
DC - Rock Creek	NZP	New emergency lighting **Amazonia**	10
DC - Rock Creek	NZP	Clean air ducts 2 buildings per year **Zoo Wide**	60
DC - Rock Creek	NZP	Install guard rails along road in this area **Bird House**	20
DC - Rock Creek	NZP	Repair Macque Cage Window **Think Tank**	100
Total			**2,036**

Question 8. What is the critical health and safety need for Capital Repairs at the Zoo?

Answer: The most significant capital health and safety needs at the Zoo are those related to improving fire protection systems at Rock Creek and Front Royal. While the Zoo has the capacity to fight a fire, automatic suppression systems such as sprinklers are largely

outdated or non-existent. Major upgrades are needed to meet Smithsonian and national fire code standards for protection of the living collections, staff and the public. In addition, the Zoo's roadways pose a safety risk to visitors, who must walk along or across the road at several places with limited visibility to access the Park from the parking areas. The Zoo's master plan will identify some solutions to make pedestrian and vehicular circulation safer throughout the Rock Creek site. The total investment in these life safety needs is estimated to exceed $40 million. Some of this work is not reflected in the current five-year program as it was only recently identified as part of the Zoo's master planning process. The Institution will request funding for this work in future years.

Questions 9. The Zoo is up for reaccredidation in 2008. Does the Smithsonian have a plan to address the remaining issues identified in the National Academy of Sciences report?

Answer: Smithsonian's continued investment in Zoo infrastructure and facility renewal, the facilities staff to maintain all the buildings and systems, and animal care staff and expenses, will ensure that NZP receives accreditation in 2008. The support in meeting on-going animal care needs, including training, the structural repair of the Commissary (General Services Building) and installation of a hay storage facility will allow us to meet all of the NAS recommendations with the exception of implementation of the Zoological Information Management System (ZIMS). The Zoo is dependent on the International Species Information System (ISIS) to complete development and roll out production and training for ZIMS.

The only area of concern is the facilities maintenance program. Increased funding is requested in FY 2007 but this is still short of what GAO says is necessary.

FRONT ROYAL CONSERVATION AND RESEARCH CENTER

Question 10. Several years ago, the Smithsonian approached this Committee about closing the Conservation and Research Center at Front Royal, Virginia. This was after significant funds were made available for backlog maintenance. What is your current position on this facility?

Answer: It is clear from developing the Zoo's Strategic Plan that one of the major strengths of the National Zoo, and one of the elements that make it unique among zoos, is its research activities. The Conservation and Research Center at Front Royal is renowned for the professional training and both in situ and ex situ conservation research conducted over the years. The Zoo's Strategic Plan fully incorporates Front Royal as an essential element. Several partnerships have been established recently and business plans are underway to assess fundraising and other opportunities for obtaining non-Federal support to expand activities at Front Royal. These include a biodiversity training program in collaboration with George Mason University; collaboration with four other large zoological research facilities and the U.S. Fish and Wildlife Service to study high priority endangered species; and possible selection as one of the field stations for the National Science Foundation's National Ecological Observatory Network (NEON).

Question 11. What is the condition of the facility?

Answer: The Conservation Research Center of the National Zoological Park in Front Royal Virginia has more than 120 structures totaling over 400,000 square feet spread across 3,150 acres. Buildings at the Center vary in condition from new, to recently renovated, to poor. Failing barns were recently repaired, but several structures remain unusable. Although minor HVAC improvements have been made, including replacement of all but one of the individual building boilers, many buildings still have obsolete or inadequate HVAC systems. Due to increasing power demands for computerized equipment at the Veterinary Hospital, the entire electrical supply to the building is in need of significant upgrade, in order to prevent system failures resulting in damage to expensive electronic equipment and loss of research data. There is no central fire alarm system at the Center, and many buildings are wood structures without fire suppression systems. Facility maintenance shop buildings do not meet fire and life safety and Occupational Health and Safety Administration codes, and are in need of urgent replacement. There are 2.5 miles of paved roads, 20 miles of jeep trails, and 30 miles of fences that must be maintained to manage the endangered species housed at this location. Failures in the above ground electrical and telephone systems and underground water supply, sanitary sewer, and storm drainage systems that serve the site cause unscheduled outages and soil erosion. The spring water system suffers from leaks due to aging plastic piping. The security systems are minimal and in need of improvement. Many buildings and outside areas do not meet requirements for accessibility to persons with disabilities. The site's master plan is currently being updated to provide a guideline for future revitalization of the buildings and utility infrastructure. Meanwhile, the Institution plans to correct the most critical life safety issues at the site over the next five years.

Question 12. The scientists and research at the Center are highly regarded worldwide. What does the Smithsonian have to do to maintain this reputation?

Answer: The scientists and research at the Conservation Research Center [CRC-Front Royal] are highly regarded worldwide. National Zoo scientists – both at CRC and in Washington DC – study species and how they function and interact with their environment and develop strategies for mitigating human impacts on species and their habitats. Smithsonian scientists provide leadership in conservation science, connect people to wildlife through exceptional animal exhibits, explore solutions through science-based programs, build partnerships worldwide, and share discoveries with other scientists and the general public. Steps necessary to ensure continued scientific leadership in the conservation sciences include:

- Maintaining existing levels of support for federal scientists and recruitment of new scientists through grants, contracts and endowments
- Continuing facilities engineering and operations (OFEO) support for the CRC campus in Front Royal and the science laboratories and associated facilities located at the National Zoo in Washington DC

- Strengthening linkages and partnerships to create synergies in the biodiversity and conservation sciences among Smithsonian units including the National Museum of Natural History, Smithsonian Environmental Research Center and Smithsonian Tropical Research Institute as well as with external partners
- Exploiting new research opportunities to study emerging infectious diseases including West Nile Virus and Avian Influenza, declining amphibians, developing real-time monitoring technologies, including creation of an early-warning system for emerging threats to biodiversity, and exploring advances in the value of cryopreserved biological materials (gametes, embryos, blood products, tissues and DNA) for helping understand and manage small populations of rare species.

Question 13. It seems that the National Zoo and Front Royal facilities serve two purposes. One is providing educational opportunities for the public and the other involves critical research on threatened and endangered species. How do these two missions interact?

Answer: Scientific excellence is essential to the National Zoo's science-based approach to animal care, conservation, exhibitions and education. The Zoo's integrated research on both Zoo animals and species in the wild results in synergies that benefit the health and well-being of both populations, as well as the human societies that interact with these diverse animals. Not only do the Zoo's scientists advance and apply conservation science through their own work, they also train and support future professionals and collaborate with other scientists throughout the United States and the world. Zoo scientists and their work are increasingly incorporated into exhibits, lectures, classes and other activities offered to the public. The long-range plan is to provide more opportunities for the public to observe the research activities carried out at Front Royal, expanding on the popular annual Autumn Conservation Festival. Not only does this integration strengthen the public's confidence that the Zoo's animal care is science based and that scientists are actively working to improve the future of wildlife around the world, but to also increase the public's own awareness and interest in conserving nature.

ASIA I AND ASIA II TRAILS

Question 14. What is the scheduled opening of the Asia I Trail?

Answer: Asia Trail will open on September 20, 2006, with a series of public events.

Question 15. Does the budget request include operational increases to properly staff and maintain the new area? If not, what are those costs?

Answer: The President's Budget provides sufficient funding to cover utilities costs and maintenance requirements for the opening of an additional 22 acres to the public. Obviously, additional funding would be useful to provide a higher level of service, such as for 2 animal keepers ($138,000) for the additional facilities opening on Asia Trail, one technician ($66,000) to run histology tests for the collections at our own diagnostic lab,

supplies ($93,000) and support for the increased grounds maintenance ($330,000) and pest management ($100,000).

Question 16. That is the total cost to build Asia II and how much has the Smithsonian committed to provide?

Answer: The total project cost for Asia Trail—Elephant Trails is $60 million, for design and construction of the facilities and installation of exhibit interpretative elements. Of that amount, the Institution will raise $25 million. The remaining $35 million is to be funded by appropriations, of which $5 million was funded in prior years.

Question 17. What is the projected time table for completion?

Answer: The current schedule calls for construction to begin in the fall 2006, with an opening projected for 2010.

Question 18. The National Zoo is a leader and one of the only institutions with a strong multidisciplinary program focused on elephant management and reproductive studies. Why is this so important?

Answer: Asian elephants are in a population crisis, which could translate quickly to extinction. While researchers at the Smithsonian's National Zoo work to accurately determine the number of Asian elephants in the wild, it is thought that fewer than 40,000 live in native range countries. Of that number, more than 15,000 are elephants that "work" in various industries, including timber and entertainment.

Severe habitat fragmentation has isolated wild Asian elephant populations, curtailing genetic diversity and sometimes eliminating migration and breeding movement. These isolated populations are rarely more than 250 individuals and are spread over 13 countries. National Zoo scientists recently determined that only 50 percent of the Asian elephant's current geographic range—already dangerously fragmented—is considered suitable habitat for these creatures. Very little of this range is large enough for the long-term support of Asian elephants.

Their survival depends partly on zoo research and breeding programs that create and maintain a healthy and genetically diverse population of Asian elephants to hedge against their extinction. The National Zoo commitment to elephants spans a century, and the Zoo has one of the most committed and experienced staffs in elephant management, research and conservation. The Zoo is distinguished by its extensive international partnerships; these partnerships help us study how Asian elephants live in the wild and also help us develop ways that humans and elephants can co-exist beneficially.

In addition, advanced zoo elephant management programs, like one at the National Zoo, can offer elephant managers in range countries more appropriate and effective methods of elephant care. Currently, these magnificent animals live in sub-standard conditions in a variety of working capacities—logging camps, temples and tourist resorts. The National

Zoo can export our expertise in elephant veterinary medicine, animal care and breeding methods, which will improve the lives of working elephants and eliminate the need to replace these animals with ones from the wild.

National Zoo scientists are working on developing long-term studies to significantly improve our knowledge about the biology, conservation, and management of Asian elephants. The National Zoo is one of only a few institutions dedicating significant effort to learning more about the needs of both captive and wild Asian elephants.

Question 19. There are several animal rights groups that have been picketing major zoos that have Asian and African elephants. Can you describe their concerns and your response to those concerns?

Answer: Critics charge that elephants don't belong in zoos and are demanding they be removed from our collections. The National Zoo's very first animals were the Asian elephants, Dunk and Gold Dust, and elephants have lived at the Zoo ever since, amazing and delighting millions of people for more than a century.

Our scientists, animal care staff, and veterinarians know how to create an environment for elephants that meets their needs for exercise, shelter, companions, and interesting activity—an environment in which females raise their young and all enjoy good health and long life. Our specialists in animal husbandry, behavior, ecology, nutrition, genetics, veterinary medicine, reproductive sciences, pathology, and conservation biology work together to discover and apply new knowledge to ensure that all of our animals thrive in the Zoo and their species survive in the wild.

For example, our scientists were the first to identify the often deadly herpes virus that attacks elephants, and were part of an international team that developed an artificial-insemination technique for elephants. Our reproduction laboratory currently monitors the reproductive hormones of more than 200 elephants in the United States to identify the most viable females for breeding. National Zoo staff helped develop tests and treatments for tuberculosis, and have investigated new diagnostics and therapeutics for a variety of conditions, including kidney disease.

The most common concern regarding elephants in zoos is that these animals need more space than zoos—especially urban zoos—can provide.

There is no scientific data available that dictates the number of acres an elephant needs for a healthy life. In fact, years of observation have shown that the movement of wild elephant herds varies widely, and is motivated by the search for food and water, increasingly exacerbated by habitat fragmentation.

Years of National Zoo study have shown that elephants need flexibility and choice. Our elephant program is based on active management that keeps elephants alert, occupied and active. While these large animals need space to move, socialize and interact, most critical

is the active use of space—zoo elephants need a rich and diverse range of choice and habitat options.

Animal rights groups claim that National Zoo elephants suffer a myriad of health issues, and that their life expectancy is much less than that of their wild counterparts. Many of their charges are related to damage done to elephant feet by standing on concrete surfaces.

National Zoo staff perform foot inspections on each of our elephants every day—checking for changes and often assessing the need to trim pads or file nails. The outdoor exhibits consist of varying substrates, including sand and dirt the elephants use as enrichment. Not all of our indoor stalls are concrete; one has rubberized flooring and another has a sand substrate.

National Zoo elephants receive excellent veterinary care, and Zoo staff have made significant contributions to the body of knowledge about elephants. Years of study have led to changes in exhibitry, management and veterinary care that have significantly improved the health and well being of zoo elephants.

Currently, National Zoo staff are creating a new environment for our elephants, anchored by significantly enlarged indoor and outdoor facilities, and supplemented with a progressive and vigorous management program. Our goal is to grow a matriarchal herd that will benefit from and contribute to the growing body of scientific data on Asian elephants, which will help save this endangered animal from extinction.

Building a new home for Asian elephants at the National Zoo is the cornerstone of our program to save Asian elephants. In addition to being places where our elephants live long, healthy lives while breeding to contribute to the survival of their species, it will offer our scientists, who already have amassed a huge body of knowledge about elephants, new opportunities to study them. Equally important, they will offer our millions of visitors the opportunity to see and marvel at these wondrous creatures, learn what our scientists and others are doing to save them, and become inspired to join our efforts. There is no substitute for the impact of seeing an elephant up-close and engaging the public to become involved in their conservation in the wild.

Question 20. The information provided by the National Zoo does not show a facilities maintenance or cyclic number for fiscal year 2006. Given the tremendous backlog at the facility, the Committee wants to ensure that adequate funds are provided. How do you determine how the facilities maintenance funds are allocated institution-wide and when will you be making that decision?

Answer: Maintenance project requirements are collected from each Zone (building) twice a year (May and December). Priorities are set for the projects by the Zone Manager and submitted to the Maintenance project manager. These lists are combined and reviewed, and a comprehensive list is developed. After we have funded our personnel and routine maintenance costs for the fiscal year, the remaining funds are used for

maintenance projects. Projects are funded in priority order regardless of location, which is the reason different buildings receive varying amounts from year to year for maintenance projects.

SCIENCE AT THE SMITHSONIAN

Question 21. The Smithsonian is the world's largest museum and research complex. What is the state of research at the Smithsonian today?

Answer: Scientific expertise and leadership are at the core of the Smithsonian's reputation for excellence. Smithsonian scientists have pioneered efforts to explore the universe and to improve our understanding of how the Earth and similar planets were formed. Smithsonian scientists are internationally recognized for their expertise in systematics, paleobiology, ecology, and biological conservation, and we are uniquely situated to explore the loss of biodiversity and to respond to governmental initiatives on climate change, tropical forest conservation, invasive species, and endangered species. Smithsonian scientists are world leaders in the fields of anthropology, ethnology, and archaeology, including the emerging field of forensic anthropology and human origins. Scientists in these fields are poised to exploit new opportunities ranging from examining the effects of current --- and even past — globalization in transforming cultures, to examining biological and cultural adaptations and recent human impacts on the environment. In short, Science is an essential part of the Smithsonian mission to "increase and diffuse knowledge." The Smithsonian's distinctive combination of talent, collections and resources makes the Institution an invaluable asset for leading America's exploration, discovering and understanding the natural world, our place in the universe, and inspiring the public.

The Smithsonian plays a unique role in the scope of American science. Because of its vast collections beyond those of any other institution, its collections-based research is unprecedented. Its field stations support and complement that research.

As a federally supported institution, the Smithsonian has a responsibility to make its collections available to scientists across the nation, to maintain the collections in top condition for study now and into the future, to train the next generation of scientists in museum-based research, and to support field programs, exhibits, education, and public outreach.

It is interesting to note that, over the last decade, the science budget has become a smaller fraction of the total Smithsonian budget, as the costs of adding new Museums and maintaining aging physical infrastructure have mounted. The Smithsonian cannot maintain its reputation and fulfill its original scientific mission if it continues to redistribute resources from research. Indeed, historically the high esteem in which the Institution is held is largely due to its scientific reputation.

Question 22. You recently completed a strategic plan for science. Can you describe that internal process and outcome, and how those results might change the way you prioritize and manage scientific research?

Answer: This Science Strategy was developed by the Smithsonian's Under Secretary for

Science and the Smithsonian Science Executive Committee. Composed of directors from the National Museum of Natural History, the National Air and Space Museum, the National Zoological Park, the Smithsonian Astrophysical Observatory, the Smithsonian Environmental Research Center, and the Smithsonian Tropical Research Institute, the Science Executive Committee serves a critical role in advising and guiding the practice of science across the Smithsonian. In addition to its responsibility for articulating the mission and vision for Smithsonian science and formulating the Science Strategy, the Committee kept in mind that the Smithsonian serves the American people, who will be the judge of this strategy's success.

To ensure the Science Strategy reflects wide integration of the research efforts across the Institution's different units, the Science Executive Committee selected four teams of distinguished scientists within their fields of study. Each of these teams reflected one of the four science themes identified by the Science Commission and specified in the Institution's mission. The theme teams were charged with articulating the big questions (priority research areas) within their respective fields; identifying the Institutional assets, capabilities, and collections that will allow the Smithsonian to address these questions; and identifying what additional resources are needed to guarantee our success in responding to new opportunities. Input from the entire scientific community at the Smithsonian as well as from our colleagues in academic, research, and museum environments was solicited and received. Based on that input the Science Executive Committee built a plan that has five strategic goals:

- Advance the Smithsonian's contribution to scientific discovery and understanding through increased agility, innovation, collaboration, focus, and communication.
- Increase the visibility of and access to Smithsonian science, and promote recognition of and support for its value and contributions.
- Enable the Smithsonian science community to pursue creativity and excellence and to promote its common mission and goals.
- Provide and maintain the technology, tools, instrumentation, and facilities necessary to meet current needs and future requirements.
- Achieve adequate, stable, multi-year funding to support the Smithsonian's mission and goals.

The resulting Strategic Plan is used as a reference for allocating resources, setting priorities, new hiring, and identifying opportunities for fund raising.

Question 23. In January 2003, a report was issued from the Smithsonian Science Commission listing 76 key recommendations. What progress has been made to date?

Answer: By the end of 2004, 94 percent of the recommendations in the Smithsonian Science Commission report were completed and progress on the balance of the recommendations has been made. In January 2005, the Smithsonian Science Visiting Committee acknowledged the progress made to date, indicating a "change of mood" in the whole science effort. The Committee praised the Science strategic planning process, and success in working with Congress. The Committee identified three main issues to

focus continuing activities that reach across all Smithsonian science: fund raising, management and outreach.

Fund Raising
The Committee recommended that major funding inputs be solicited from outside sources such as grants, contracts, foundations, and individual funders. Working with the development office, the science units exceeded their goal in private sector fundraising and raised $33.7million in FY 2005. $133.5 million was raised in grants and contracts in FY 2005.

Management
The Visiting Committee recommended that the Science Executive Committee be more engaged in the decision-making process. Over the last year, this group has been involved in all major activities of the Under Secretary for Science, from establishing strategic priorities to influencing key personnel decisions.

Outreach
The Visiting Committee noted that the work of the Smithsonian science community was still not as well known as it should be, and that focus should be placed on science outreach. In FY 2005, the number of publications by Smithsonian science units was 42% higher than in FY 2004. There is now a process to track the number of science stories in major media and the number of scientific presentations at regional, national and international meetings and seminars. The results this fiscal year will serve as a baseline for measuring output in future years. In addition, the publication, Spotlight on Science, is distributed bi-weekly via e-mail to 1000 recipients. It is also posted on the Smithsonian website, and podcast. In 2005 there were 22,000 visitors to the website. From December 1, 2005 to March 29, 2006, there were over 10,000 podcast downloads. There are plans to expand and improve outreach in the coming year.

Question 24. What ongoing Smithsonian programs have the greatest impact on maintaining high quality scientific research?

Answer: Smithsonian science is a world leader in a diversity of scientific disciplines. Federal appropriations sustain the basic scientific infrastructure which is the prerequisite for external grants and funding, publishing in peer-reviewed journals, and informing the public about the latest scientific discoveries in an exciting and compelling manner. The Smithsonian's Science Strategy has established ambitious but clear scientific goals for the first decade of the 21st Century. Success in achieving these goals is contingent upon providing our scientists with the basic tools needed to conduct cutting-edge scientific investigations, compete more effectively for external funds, and serve the public better by increasing scientific knowledge. Without these tools the Institution risks surrendering its historical leadership in core scientific competencies, including ecology, earth sciences, physiology, genomics, and the preservation sciences. A program that maintains scientific equipment in optimal condition, productivity and efficiency is essential for high quality scientific research.

An additional key to quality scientific research is the ability to attract the best and brightest young scientists who will comprise the next generation of scientific leadership at the Smithsonian Institution, and elsewhere. The Smithsonian Institution provides research opportunities to senior scholars and graduate students from institutions across the U.S. and around the world. In FY 2005, ninety appointments were awarded for fellowships and short-term visiting scholars. This research and training program supports advanced scientific training and increases the Institution's scientific capacity for achieving the goals set forth in its Science Strategic Plan – advancing our contribution to scientific discovery through building on our core scientific strengths.

Question 25. How much did the Smithsonian request from OMB for these programs compared with the amounts in the justification?

Answer: According to section 22.1 of OMB Circular A-11, agencies cannot release agency justifications provided to OMB to anyone outside the Executive Branch.

Question 26. Your strategic plan makes the claim that basic research leads to discoveries that create opportunities. Can you explain this statement?

Answer: If the past has taught us anything, it is that the future is unpredictable. Basic research leads to discoveries that create opportunities. Basic research is the engine responsible for fundamental advances in our knowledge. People take for granted all the amazing devices and aids to their lives that are the direct result of basic research. Basic research and technology developments are tightly bound in a synergistic relationship. Basic research provides the foundation for progress in understanding and mastering our universe, and technology provides the advanced tools to probe nature more completely.

Basic research has far-reaching consequences--some unpredictable and some long delayed. For example, over more than a century, from the 18th to the mid 19th, brilliant scientists explored the properties of electricity and magnetism and the relations between them, including Benjamin Franklin, Michael Faraday, and Smithsonian Institution Secretary Joseph Henry, with no applications in sight. It was the synthesis of the results of these experiments in a model, created via four equations by James Clerk Maxwell in 1865, that encapsulated all the phenomena of electricity and magnetism then known, and also predicted new phenomena not then known to exist, the most important being electromagnetic waves. In 1888, Heinrich Hertz tested this prediction and generated and detected what we now call radio waves. The overall result from the early basic research is present everywhere in society, in all the electrical appliances and telecommunications we use.

Different scientists choose different areas to explore. This diversity of interest, combined with a keenness of mind drives our economy. The delay in application does not diminish the key role of basic research. Often, disparate results provide complementary keys to significant applications. For example, collections often help in ways that could not have been imagined by the collectors. A collection of waterfowl, gathered in part by Alexander Wetmore who later became the Smithsonian's sixth Secretary, has helped address the

mystery of the famous flu pandemic of 1918. No one knows what made this virus which is deadly to humans. A key question is: Did the human pandemic stem from a mutation in birds or mammals? Wetmore's collections occurred before, during and after the pandemic. One of the common ideas was that the non-human carrier of this flu virus was an avian, and that the collection could be used to study viral components in the avians. This use was totally unknown and unpredicted at the time the specimens were collected. In the past few years, scientists selected a sample of ducks from the 1918 time period, in large part from Wetmore's Smithsonian collection, and found a subsample of six that had an influenza virus. Analyses of the virus showed little change in the avians' virus between 1918 and now. The conclusion drawn is that the viruses in avians, for some unknown reason, do not mutate over time periods and therefore were not likely the source of the mutation responsible for the pandemic. The search is therefore turning towards a mammalian source for the mutation.

And one final example. Every year, collisions between birds and aircraft (birdstrikes) cause millions of dollars in damage to commercial and military aircraft. From 1990 to 2002, the Federal Aviation Administration (FAA) estimated that wildlife strikes alone cost more than $345 million a year in damages and over 537,000 hours of aircraft downtime. Each year, birdstrikes cost the U.S. Air Force tens of millions of dollars in aircraft losses. The National Museum of Natural History's (NMNH's) Feather Identification Laboratory is collaborating with the Air Force and the FAA to identify the species of birds involved in birdstrikes, which will enable habitat managers to design schemes that discourage birds' use of airfields, and will help aircraft manufacturers design aircraft that can withstand the impact of bird collisions. Positive identification of species of birds is possible by studying the fragmentary feathers that are recovered from these strikes and comparing the samples to the vast museum collections of bird study skins and reference microslides stored in NMNH's Division of Birds.

This study demonstrates that specimens collected and preserved for long periods of time are tremendously valuable to science. The National Bird Collection at the Smithsonian's Natural History Museum are maintained as a vital resource of ornithological research with more than 600,000 specimens comprise the National Collection that is accessed by hundreds of scientists from around the world each year who conduct research in the biogeography, evolution, systematics, taxonomy, paleontology and ecology of birds. Over time, new models may provide new insights into nature which will allow us even greater control over its behavior, likely to the benefit of society. The studies are basic research. One cannot predict when the next application, whether influenza or aircraft, will draw upon that basic knowledge.

Question 27. You claim that the Smithsonian fosters the integration of scientific research with collections, education, outreach and management across the institution. Can you discuss this in more detail?

Answer: The integration process can be demonstrated by the following example. Despite years of research, we are still far from identifying all of the species on Earth. Research expeditions to document biodiversity are expensive and time consuming, and

well trained people are difficult to find. Further, processing collected specimens consumes additional time and money. In order to get the maximum return for the investment, the target location of expeditions should be carefully determined. Smithsonian researchers have described a new approach to determine the best locations for exploration.

Analysis of environmental variables and information on existing collections help predict the optimum sites for expeditions. A survey gap analysis tool was developed to help select sites that will most likely contribute the most to research efforts. The survey gap analysis tool looks at a geographic region, taking into consideration the information from all prior environmental surveys and collections from that region. It then evaluates the potential improvements that could be gained by adding a new site to the region. The tool was tested to select expedition sites in Guyana. Plants, birds, and termites collected from Guyana in earlier expeditions were examined and sites for future collecting expeditions were determined. Results demonstrate that the use of a survey gap analysis tool can help maximize resources for gathering new information on biodiversity. Future plans involve testing the hypotheses presented by these analyses by sending expeditions to the suggested areas.

The scientific research resulting from these activities ranges from the traditional study of the relationship among species to investigation of past pandemics to search for cures to disease to an increased understanding of the human species' place in the world.

The physical collections, and the understanding that results from studying them, form the basis of our public programs from exhibits in the museum to classroom education programs for school children. The mission of the Smithsonian is to "increase" and "diffuse" knowledge. Much of this increase is tied to collections and it is the knowledge developed by Smithsonian research that is diffused to the public.

The ability of Smithsonian science to undertake different kinds of research using different approaches in different settings is unique. The Smithsonian's distinctive combination of talent, collections, and resources makes the Institution an invaluable asset for leading America's exploration, discovering and understanding our natural world and our place in the universe, and educating and inspiring the public.

Question 28. The Smithsonian is involved in many scientific disciplines. What are some of the priority areas?

Answer: Consistent with the Science Commission Report, and as indicated in the Science Strategic Plan, four key themes provide the strategic platform for science at the Institution. The themes, and their priority research areas follow:

Theme: *Origin and Nature of the Universe*
Understand the origin and nature of the universe by studying dark matter and dark energy, star and planet formation, and black holes.
Priority Research Areas:

- Dark Matter and Dark Energy—Advance knowledge and understanding of how structure formed in the universe over time.
- Star and Planet Formation—Enhance knowledge and understanding of the formation and evolution of stars and planets and characteristics of their surroundings.
- Black Holes—Increase understanding of the formation, evolution, and interaction of compact objects, such as black holes.

Theme: *Formation and Evolution of the Earth and Similar Planets*
Understand the formation and evolution of the Earth and similar planets.
Priority Research Areas:

- Planetary Formation and Evolution—Advance knowledge and understanding of how planetary systems form and evolve.
- Evolution of Earth-like Planets—Focus research on how Earth-like planets evolve.
- Planetary Habitability—Increase our knowledge and understanding of what makes planets suitable for life.

Theme: *Discovering and Understanding Biological Diversity*
Discover and understand biological diversity, and advance knowledge of its evolution and sustainability.
Priority Research Areas:

- Encyclopedia of Life—Discover and describe the diversity of species.
- Forces of Change—Understand the evolutionary and ecological forces (including human impacts) that affect diversity.
- Biology of Extinction—Understand the extinction of species and loss of habitats, whether past or present, and provide strategies for reversing human impacts and restoring and protecting species and habitats.

Theme: *Study of Human Diversity and Cultural Change*
Understand the processes that shape human, biological, cultural, and linguistic diversity and change.
Priority Research Areas:

- Human–Environmental Interactions Through Time—Explore human origins and adaptations, human dispersals into new environments, and the emergence of agriculture.
- Human Impacts on the Environment—Advance understanding of how humans have shaped the planet in recent times.
- Cultural Responses to Globalization—Increase our knowledge of the maintenance, transformation, and loss of cultural and linguistic diversity in the face of globalization.

Question 29. What would you say are the most exciting new areas of research and discovery?

Answer: The following are a few examples for exciting new areas of Smithsonian research. For more stories about exciting Smithsonian science research visit: http://www.si.edu/research/spotlight/

Barcoding the Planet

A new technology that uses short gene sequences (or "bar codes") to distinguish one species from another could revolutionize the world of taxonomy and biological collections. Scientists are developing a portable device that will provide a rapid method for non-taxonomists to identify unknown specimens and then link the information to a massive biological database.

In February 2005, the Consortium for the Barcode of Life (CBOL), which is hosted by the National Museum of Natural History (NMNH), convened The First International Barcoding of Life Conference in London. The consortium is made up of over 100 member museums, governmental agencies, research organizations and private companies from 40 countries. CBOL's mission is to explore and develop the potential of DNA barcoding for research as a practical tool for species identification.

DNA tagging has proven effective on most of the animal groups so far tested, including insects, fish, birds, and mammals. However, it has not been demonstrated successfully in plants. During the conference, John Kress, Chair of NMNH's Department of Botany, and colleagues presented their results on identifying a workable bar code for plants. They also announced the launch of a major project that will test their novel bar code on 8,000 plant species in Costa Rica.

CBOL wants to tag every organism on Earth—starting with the 1.7 million species that have already been identified and continuing with the estimated 10–20 million that have not. CBOL members anticipate myriad applications of the information the new technology will yield, from enforcing food laws, to protecting wildlife and developing biodefense systems.

SAO Astronomers Discover First Stellar Outcast

Smithsonian Astrophysical Observatory (SAO) astronomers were the first to report the discovery of a star leaving our galaxy, speeding along at over 1.5 million miles per hour. This incredible speed likely resulted from a close encounter with the Milky Way's central black hole, which flung the star outward like a stone from a slingshot. So strong was the event that the speedy star eventually will be lost altogether, traveling alone in the blackness of intergalactic space.

The star, which was studied using the MMT Observatory in Tucson, Arizona (a joint facility of SAO and the University of Arizona), once had a companion star. However, a close pass by the supermassive black hole at the galaxy's center trapped the companion into orbit, while the speedster was violently flung out.

The star is traveling twice as fast as galactic escape velocity, meaning that the Milky Way's gravity will not be able to hold onto it. Like a space probe launched from Earth, this star was launched from the galactic center onto a never-ending outward journey. It faces a lonely future as it leaves our galaxy, never to return.

First Human Fossil Found at Olorgesailie Field Site

Working at Kenya's Olorgesailie field site during the summer of 2003, scientists from the Smithsonian's Human Origins Program, discovered a partial cranium of the first well-dated human fossil and that is also the first human fossil ever found at the site. The fossil, which is between 970,000 and 900,000 years old, stands in a 400,000-year gap in the human fossil record of East Africa. The gap is between 1 million and 600,000 years old—an important time period prior to the origin of Homo sapiens in Africa around 200,000 years ago.

Olorgesailie is famed for its concentrations of Acheulean handaxes. The discovery of the first human fossil there comes after 62 years of survey and excavation at this site, dating to the first exploration and digging by Louis and Mary Leakey in 1942. Since 1985, the Smithsonian's Human Origins Program has directed excavations at the site, in collaboration with the National Museums of Kenya. Their research has focused on how early humans used the ancient landscape. Over the years they have found stone tools and animal butchery sites, and have investigated how humans adapted to an extensive degree of environmental change over time.

Question 30. Can you explain the phrase "scientific illiteracy" and why this country should be concerned about it?

Answer: A survey by the National Science Foundation revealed that 90 percent of Americans are either moderately or very interested in learning about new scientific discoveries. Unfortunately, of the 90 percent, fewer that 60 percent knew that it takes 365 days for the Earth to revolve around the sun.

A March 30, 2006, Post Poll Science Quiz by the Washington Post found that more than one of five Americans think the sun orbits around Earth, including about 1 in 10 college graduates.

As a nation, our level of scientific literacy remains abysmally low, especially in view of the decisions we will be required to make in the 21st century. From the founding of our republic there was the notion that it is important to have a literate populace as a crucial element of our ability to govern ourselves. It is important to teach not just the facts of science--the artifacts, the things that result from science--but the process of science as well. It is important to establish a standard of understanding that can be applied as we make difficult decisions. We must understand how to relate to the results of science--what questions to ask--so that we can make informed decisions.

As stated in the President's American Competitiveness Initiative, education is the gateway to opportunity and the foundation of a knowledge-based innovation-driven economy. Education efforts outlined in the Initiative will focus on teaching important analytical, technical, and problem-solving skills to our children. These skills are essential in a technologically advanced society dealing with complex technical issues.

Question 31. Many of the exhibits in Smithsonian museums are very old. How many exhibits contain inaccurate information because the science has changed?

Answer: Many exhibits at Smithsonian museums are outdated in both method of delivery and content. A few examples include:

- Dinosaur Halls at the National Museum of Natural History (NMNH): Since the dinosaur halls opened nearly 25 years ago, a true revolution in dinosaur paleontology has occurred, and as a result outdated information affects more than half of the exhibits in our halls. These inaccuracies arise because the field has seen improvements in technology, the acceptance of new scientific hypotheses, and thousands of new discoveries around the world. Examples of inaccuracies in our halls include:

  a) the postures of many of the dinosaurs are inaccurate, reflecting outdated ideas concerning their anatomy and locomotion;

  b) the early dinosaur *Heterodontosaurus* is placed in the Triassic Period (210 million years ago), but is now known to be from the Jurassic (180 million years ago), thanks to improved dating of the sediments in which it was found; and

  c) the origin of birds from dinosaurs, now widely accepted, is not even mentioned in the halls.

- Western Cultures at NMNH: The origins of agriculture section of the Western Cultures are 20 years out of date. Discoveries in the past twenty years have totally transformed our understanding of the timing, the location, and the plant and animal species evolved in agricultural origins in the Near East. None of these discoveries are reflected in the exhibit. In addition, modern techniques - such as small sample direct dating, the use of high power microscopy, genetic and chemical analysis - were not invented when the hall was opened in 1978 and thus are also not reflected in the exhibition hall. In sum, the hall lacks current information on both what we know about this key transition in human history and how we know it. This is especially regrettable since NMNH scientists are at the forefront of this rapidly changing area of research.

- Beyond the Limits at the National Air and Space Museum (NASM): This gallery focuses on the interrelationship between computer technology and aeronautics. The gallery was developed in the mid-1980's. Even with periodic upgrades, the

technology presented does not account for the exponential growth in information technology and its related impact on aeronautical engineering.

- Exploring the Planets at NASM: This gallery highlights the history and achievements of planetary exploration. The gallery opened early in the Museum's history. Although certain elements have been upgraded, including the addition of new Mars-related elements, the gallery is still in need of a significant upgrade.

- Looking at Earth at NASM: This exhibition shows visitors how looking from above assists in understanding the planet below. Once again, certain elements have been upgraded, but a significant revision is needed to make the full exhibition current.

Question 32. How is the Institution addressing this problem?

Answer: The Institution will use today's technologies in the design of new exhibits to make it easier to keep information current. For example,

National Museum of Natural History

- The new design for the Ocean Hall at the National Museum of Natural History will include audio-visual displays that will provide current and updateable scientific information through internet connections and live-streaming video.

- The Museum is providing an infrastructure for internet connections throughout the Ocean Hall exhibition so that scientists giving special lectures and tours will have the ability to provide the most current information to our visitors.

- The Institution will also provide the infrastructure throughout the Ocean Hall exhibition that will allow for web-cams within the exhibits so that visitors at home can view activities in the exhibition from their computers or I-Pods.

National Air and Space Museum

- In Looking at Earth and Exploring the Planets, the National Air and Space Museum (NASM) has installed "What's new" video walls, allowing us to present the most recent scientific findings. This presents close to real-time updates on major scientific findings. The Museum's continuing relationship with NASA and other organizations provides a readily available source of new information.

- If the Institution can raise the money, the Exploring the Planets exhibition at NASM will undergo a complete modernization program, incorporating many of the computer interactives and this would incorporate more web-based computer interactives and live updates tied to NASA-related information.

COLLECTIONS – USE, CARE, DIGITIZATION, ACQUISITION/DISPOSAL

Question 33. A comprehensive study on Smithsonian collections was published in April, 2005. Regarding digitization, the study mentioned that there were opportunities for collaboration and leveraging of resources across units and with outside entities, but museums had not taken advantage of these opportunities. A key recommendation was for Smithsonian leadership to clarify through policy, where digitization and the development of Collections Information Systems fall on the list of Institutional priorities. Lacking that clear central policy, Digitization and Collections Systems would continue to be low priorities. Can you comment on this finding?

Answer: The Institution's collections management policy (Smithsonian Directive 600) reiterates the Smithsonian's commitment to placing collections information and images in computerized databases and sharing collections information through collaborations among Smithsonian units and with other educational and research institutions. Funding has supported the migration of millions of records from obsolete legacy database systems to stable collections information systems, the digitization of more than a million images, the enhancement of collections records with research findings and curatorial notes, and the implementation of collections information systems across the Institution. Pan-Institutional funds dedicated to collections information systems are distributed annually to Smithsonian units on a competitive basis to support deployment of unit-specific collections information systems, data enhancement, and public access. In addition, FY 2006 annual performance plans for Smithsonian directors includes the requirement to have a digitization plan that establishes unit-specific goals, priorities, and standards for the digitization of collections. The Smithsonian has been making steady progress in collections digitization despite limited resources.

Question 34. Secretary Small should be commended for requesting this collection study. Is the Smithsonian leadership embracing the recommendations in a comprehensive way?

Answer: The Smithsonian leadership is embracing the recommendations in a comprehensive way. Following a complete discussion of the study results with the Secretary, senior management and museum directors have developed a pragmatic and systematic approach to improve stewardship of the national collections. Important steps taken to date include:

- Creation of the first-ever Smithsonian Collections Advisory Committee to assist senior management in establishing Institutional priorities for collections management. The Committee, composed of representatives from across the Smithsonian, is currently working with senior management to implement the collections study recommendations.
- Establishment of the Collections Care and Preservation Fund with the Smithsonian's FY 2006 appropriation of $985,000.
- Distribution of the FY 2006 Collections Care and Preservation Fund to Smithsonian units to improve collections care, mitigate deterioration, and maintain state-of-the-art collections management systems.

- Development of collections-specific performance goals and standards for senior management and museum directors.
- Revision of the Smithsonian's collections management policy and implementation standards to reflect the approved collections study recommendations.
- Two-day symposium held, which was attended by 80 Smithsonian staff from 20 collecting units. Each unit will now revise or create collections plans that set short- and long-term collection goals.

Future funding will dictate progress in responding to the study's recommendations, but the Institution is committed to improving collections stewardship.

Question 35. A document forwarded to the Committee from the Smithsonian makes the statement that "the Collections Information Systems ensure collections accountability and accessibility." Yet, the recent collections study indicates that the CIS has been a low priority for the Institution, has had trouble competing for resources, and was almost shut down because of fears the system was becoming corrupted in the absence of adequate maintenance. Can you explain this discrepancy?

Answer: The section of the collections study cited (page 6) refers only to the National Museum of American History. The text follows: "Indeed, at the time the research phase of this study was completed, digitization at one unit (NMAH) had practically come to a halt, and the unit was contemplating shutting down its CIS because of fears the system was becoming corrupted in the absence of adequate maintenance." It should be noted that there are multiple collections information systems across the Institution in varying stages of implementation and with various levels of resources.

In 1993 the Smithsonian successfully established the Information Resources Management (IRM) Pool, and in 1998 Congress approved a $960,000 increase to this pool that was specifically dedicated annually to Smithsonian units on a competitive basis to support the deployment and enhancement of unit-specific collections information systems that improve public access to the collections. Although there is no increase in the FY 2007 request to Congress, the maintenance and enhancement of collections information systems remains a priority.

Regarding NMAH specifically, in the time since the collections study data were gathered, the Museum has taken steps to stabilize its system and data content. Starting in the early 2000's, staff erosion within the Museum's collections documentation and curatorial units along with decreased funding lowered resource levels below the point needed to sustain a stable CIS program. In FY 2005, action was taken to stem further project erosion and start rebuilding the NMAH Collections Documentation Program. The CIS Project Manager vacancy was filled, providing leadership for the program, and a curatorial position was reprogrammed for digital asset management within the CIS program to ensure that digital images of the collections and ultimately related audio, video, and film resources are documented in the CIS and available to internal and external audiences. An analysis of the NMAH CIS is being completed to assess the current state of the data; identify problems in areas of data format, vocabulary usage, and structure; and develop

recommendations and identify the resources needed for corrective action. This project will be completed in FY 2006.

Question 36. Of the more than 136 million objects and specimens in the Smithsonian collection, what percentage has been electronically recorded and what portion is accessible to the public on line?

Answer: To date, 32.9 million objects and specimens are documented in unit-specific electronic collections information systems – of which 12.2 million are available in electronic form to the public. The percentage of collections that are documented electronically varies widely across the Smithsonian. Museums are at different stages in implementation of individual collections information systems. For example, the six Smithsonian art museums, as well as NASM and NMAI, have electronic records for nearly every object. Because of the vastness of our natural history collection (126 million items), a smaller percentage has been captured electronically.

Question 37. The report states that online users of collections information are ill-served by the lack of a single point of entry for the Institution. Is this an area that you will be seriously looking to resolve?

Answer: While providing the ability to perform a single search transaction across the Institution's multiple collections information systems (CIS) is a long term goal, there are higher priority investments that must be made to enhance, operate, and maintain our collections information systems. These include base funds to pay for CIS software license fees, acquire servers, on-line storage, and automated tape backup systems, and to implement a digital asset management system.

Question 38. Last year the Committee included an additional $1 million for collections care. Proposals to spend these funds totaled nearly $4 million. Can you provide for the record the criteria used and the final outcome?

Answer: Proposals were reviewed and ranked using evaluation criteria and priorities established in the Guidelines for FY 2006 Collections Care and Preservation Fund (CCPF). Evaluation criteria included:

- alignment to the Smithsonian's Strategic Goals and Performance Plan
- contribution to the unit's strategic plan regarding collections
- significance of the collections and the potential impact of the project for improving preservation and access
- impact on the unit's research, exhibitions, loans, publications, and educational programming
- soundness of the project methodology in relation to the unit's collections and programmatic goals
- viability, efficiency, and likely productivity of the project work plan including concrete measurable goals
- appropriateness of the project budget
- level of increase in space efficiency

- level of resources dedicated by the unit commensurate with the size of the request
- unit's ability to provide the necessary support to sustain and accomplish a multi-year project
- potential to support or leverage proposals for external funding
- potential as an innovative approach to collections care and preservation.

In order to maximize available resources, priority was given to projects that demonstrated:

- improvements toward addressing the unit's most critical collections care and preservation needs
- broad implication and impact
- collaboration among Smithsonian units
- efficient and effective use of limited resources
- long-term benefit to the unit and Smithsonian.

Funding was awarded to fourteen proposals in nine Smithsonian units (Note: 36 proposals from 16 collecting units were submitted). Allocations supported the stabilization and conservation of specific collections at risk; the purchase of compact storage equipment and housing to replace obsolete cabinetry and materials detrimental to collections; and preservation surveys to establish priorities and strategic plans for the allocation of collections care resources. Unfortunately, due to FY 2006 across-the-board rescissions, only $985,000 of the $1 million was available for distribution.

A sampling of funded projects includes:

- The replacement of the spacesuit storage unit at the National Air and Space Museum which houses pressure suits worn during the Mercury, Gemini, and Appollo missions. This project will replace the existing 25-year old storage unit to ensure the appropriate environmental conditions necessary for the long-term preservation of these irreplaceable artifacts.
- The preservation of the U.S. Armed Forces History Military Collection at the National Museum of American History, one of the world's premier uniform collections. This project, part of the museum's strategic plan, involves the conservation, rehousing, and documentation of uniforms from the Civil War to World War I.
- The conservation and documentation enhancement of the U.S. Exploring Expedition (1838-1842) Collections – 10,000 specimens from the Wilkes Expedition – maintained by the National Museum of Natural History. These collections represent the moon rocks of that generation and serve as the foundation of scientific study to this day. Many specimens are at risk due to historic treatments using mercuric chloride, a fairly common preservation practice in the past.
- A preservation survey of the Peter A. Juley Collection – containing over 127,000 images – the cornerstone image collection of the Smithsonian's American Art Museum. The collection documents the largest and most-respected fine arts photography studio in New York City, serving as a "Who's Who in American Art." For many, the photographs represent the most complete record of a given

artist. This project survey will identify critical preservation needs, especially those which are nitrate negatives, and establish a strategic plan for future preservation activities.

- The survey of the ethnographic collections at the National Museum of the American Indian for heavy metal contamination. Late 19th and 20th century practices included the treatment of collections with chemical pesticides for preservation purposes – contaminates which are harmful to staff and the public during handling and use. The survey will determine the level and kind of contamination and establish mitigation techniques for cleaning.

Question 39. While project funding for collection's care is important, isn't the greatest funding need additional staff to help conserve, inventory and catalog the collections?

Answer: The greatest funding need is for additional staff. While the need for increased resources has been identified, the monies we have received for the Collections Care and Preservation Fund and the Collections Information Systems IRM Pool are extremely important in enabling Smithsonian collecting units to hire temporary staff and contractors to address the most critical collection needs. Both funding sources allow strategic funding of the highest priority collections management needs across the Institution.

Question 40. How critical is this need Institution wide?

Answer: This is a very critical need throughout the Institution. Although collections care is fundamental to the health, longevity, and usefulness of collections, Smithsonian collections are increasingly at risk because of declining resources to perform basic collections management activities. The collections study documented the steep decline in collections management personnel over the past 10 years. Between 1994 and 2003, staff levels in collections care decreased overall by 17 percent. Two of the Smithsonian's largest museums – the National Museum of Natural History and National Museum of American History – have been most seriously affected with reported declines of 59 percent and 51 percent respectively.

Question 41. Collections are the backbone of the Institution. They are key to public education as well as research. If the current budget climate continues, do you believe that the Smithsonian will make collections care, i.e. providing additional staff, a priority or just continue with a small project funding source?

Answer: Collections care is an Institutional priority that requires increased future funding. However, in the current budget climate, Smithsonian leadership will continue to take a pragmatic and systematic approach to improving stewardship of the national collections. Smithsonian management established priorities for funding needs to maximize the impact of available resources. The acquisition, preservation, and use of collections are fundamental to the Smithsonian's mission and have been the foundation upon which its reputation rests. The scope and significance of Smithsonian collections make it imperative to ensure that they are properly preserved and made accessible for current and future generations.

UPDATE ON MAJOR CONSTRUCTION

Question 42. Can you describe the status of the Arts and Industry relocation and closure, Pod 5, National Museum of American History (Behring Center), National Museum of Natural History (Ocean Hall Exhibit), Patent Office Building, and the National Museum of African American History and Culture?

Answer: The following is a summary of the current status of the Institution's major revitalization and construction projects.

Arts and Industries Building Relocation and Building Closure

$34 million total project cost

Currently, the following relocations have been completed:

- The Smithsonian Associates Discovery Theater move to Ripley Center (11/04)
- Smithsonian Early Enrichment Center move to American History Museum (1/05)
- SI Traveling Exhibition Service move to L'Enfant Plaza (3/06)

The objective for 2006 is to relocate all remaining staff out of the Arts and Industries Building. The following tenants have spaces currently under construction with moves scheduled between May and August 2006:

- SI Archives, Office of Facilities Management and Reliability (OFMR), Office of Protection Services headquarters, Office of the Chief Information Officer near-Mall operations, Office of Policy and Analysis move to Capital Gallery
- Office of the Chief Information Officer Data Center move to Herndon
- Accessibility Office move to American History Museum
- Smithsonian Affiliations move to L'Enfant Plaza

The following tenants have spaces for which construction documents are out to bid, with moves scheduled for September 2006:

- Office of Development - Contributing Membership, Office of Special Events, Arts & Industries Building Exhibitions, and OFMR South Mall Building Management move to the Quadrangle

The following tenants have spaces under design for moves scheduled in September, 2006:

- Smithsonian Latino Center, Asian Pacific Studies, Photography Initiative to move to Capital Gallery

Museum Support Center, Pod 5

19,500 gross sq. ft. $42.7 million total estimated cost

Construction of a fifth storage pod at the Museum Support Center in Suitland, Maryland, began in October 2005. Pod 5 will house most of the collections currently preserved in

alcohol at the Natural History building and all of the collections housed in Pod 3 at MSC. This will eliminate a major safety concern by removing approximately 365,000 gallons of alcohol from non-code-compliant facilities. Congress has provided $37.3 million of the total project cost of $42.7 million through fiscal year 2006, with the remaining $5.4 million included in the Facilities Capital budget request for fiscal year 2007. The construction is 20% complete and on schedule to be finished in April 2007.

National Museum of African American History and Culture

Total project and program cost to be determined
On January 30, 2006, after the completion of a comprehensive site evaluation study, the Regents designated the site bounded by Constitution Avenue, Madison Drive, and 14th and 15th Streets, NW, as the site for the new museum.

The site is currently under the jurisdiction of the National Park Service, Department of the Interior. The Smithsonian Office of General Counsel is pursuing the site transfer, including coordination with the Park Service.

The level of interest in the design demands that a new competitive process be undertaken to select the design team. Funding is needed imminently for pre-project planning and pre-design services, including an environmental impact statement, historic preservation research and consultation, and architectural programming.

National Museum of American History, Kenneth E. Behring Center

Central Core: 120,000 gross sq. ft. $89.2 million total project and program cost

The completed 35% design documents, reflecting an extensive Value Engineering effort to maintain the budget, were received in March 2006. The $89.2 million total cost includes design and construction costs for infrastructure and architectural enhancements for the central core renovation and Star-Spangled Banner exhibit. The Federal contribution to the project is $4 million for design and $41.9 million for public space renewal; the remaining amount will be Trust-funded.

Construction is planned to start in Fall 2006, and the building will remain closed for 20 months to permit the disruptive demolition and re-installation of major building systems throughout the central core area. The building will reopen in early Summer 2008, with the reopening of the Star-Spangled Banner exhibit slated for September, 2008.

Private funds have been raised for the central core enhancements and fund raising continues for the Star Spangled Banner exhibit. The fiscal year 2007 Federal budget request of $13.5 million will complete the total federal contribution of $45.9 million for the central core project.

National Museum of Natural History, Ocean Hall Exhibit

39,000 sq. ft. (exhibition area only) $43.9 million total estimated cost

The National Museum of Natural History is in the midst of its largest renovation of public space in the last 40 years. This major phase of the Museum's master plan involves seven major halls, and replacement and relocation of the escalators. The installation of the Ocean Hall exhibit begins upon completion of the public space renewal project in March 2007.

The total estimated cost of the Ocean Hall project is $43.9 million: $21.7 million from Smithsonian Federal funding for fiscal years 2002 through 2006 and $22.2 million from a National Oceanic and Atmospheric Administration grant.

The construction of the federally funded portion is 38% complete with turnover for exhibit installation on schedule for March 2007. The target for opening the Ocean Hall exhibit is September 2008.

National Zoological Park

$111 million total estimated cost for Asia Trail, Phases I and II

The Asia Trail, a Federal/private partnership with more than $12 million in non-Federal funds raised to date, will upgrade nearly 25 percent of the developed area of the National Zoo.

Asia Trail I will provide a renovated home for the giant pandas, sloth bears, fishing cats, red pandas, giant salamanders, small clawed otters, and clouded leopards. The total projected cost of Asia Trail I, including the otter habitat, is $52.7 million, funded with $45.2 million Federal and $7.5 million Trust. Construction of Asia Trail I is nearly 80% complete, with an opening planned for September 2006.

The follow-on project will renovate the historic Elephant House and create an expanded and enriched outdoor environment for the Asian elephants. The total projected cost of Elephant Trails is $60 million, of which $35 million is Federal. The fiscal year 2006 appropriations bill provided $9 million for the elephant facility and an additional $4.5 million for other Zoo facilities revitalization projects. The fiscal year 2007 request contains $13 million for the Elephant Trails project.

Donald W. Reynolds Center for American Art and Portraiture

384,000 gross sq. ft. $298 million total estimated project and program cost

The historic Patent Office Building, now known as the Donald W. Reynolds Center for American Art and Portraiture, will reopen to the public on July 1, 2006. The project includes renewal of the 170-year-old building and creation of a 346-seat auditorium, open conservation labs, and storage areas. The physical plant renewal project is approximately 90 percent complete. Planning is underway for opening events and the museums' staff are installing exhibitions.

The anticipated opening date for the privately funded courtyard enclosure is late fall 2007. A construction delay occurred when the National Capital Planning Commission (NCPC) rejected the final design submission at its June 2005 hearing. A revised design was approved by the NCPC in September. The interior landscape and exterior landscape

with F Street stair reconstruction will be reviewed for preliminary and concept approval by NCPC on April 6, 2006.

The $298 million total project cost includes $166 million in Federal funds for revitalization of the original building; $72.6 million Trust for the courtyard enclosure, landscape, and F Street stairs; and a combination of $7.6 million federal Salaries and Expenses and $51.8 million trust for exhibits, programs, and support costs.

Question 43. If private funding is involved, please provide the estimated total federal cost and planned private giving?

Answer: The cost estimates for these projects are summarized below, in millions of dollars. These estimates include the cost of exhibits, where appropriate.

Project	Total Cost	Federal Funds	Raised Funds
Arts and Industries Relocation	34.0	34.0	0
Museum Support Center, Pod 5	42.7	42.7	0
National Museum of African American History and Culture	To be determined	To be determined	To be determined
National Museum of American History, Kenneth E. Behring Center, Central Core Revitalization and Star Spangled Banner Exhibit	89.2	45.9	43.3
National Museum of Natural History, Ocean Hall Exhibit	43.9	21.7	22.2
National Zoological Part, Asia Trail I and II (Elephant Trails)	111.0	81.0	30.0
Donald W. Reynolds Center for American Art and Portraiture	298.0	173.6*	124.4

* Includes $7.6 million S&E and $166 million Facilities Capital

Question 44. Please provide the target dates for completion of each major construction project.

Answer: The projected completion dates for these projects are listed below.

Project	Estimated Completion Date
Arts and Industries Relocation	October 2006
Museum Support Center, Pod 5	April 2007

National Museum of African American History and Culture	To be determined
National Museum of American History, Kenneth E. Behring Center (Central Core)	May 2008
National Museum of Natural History, Ocean Hall Exhibit	Construction: March 2007 Exhibit: September 2008
National Zoological Park, Asia Trail I and II (Elephant Trails)	Asia Trail I: September 2006 Elephant Trails: September 2009
Donald W. Reynolds Center for American Art and Portraiture	Museum opening July 2006 Courtyard opening late Fall 2007

Question 45. A recent report from the Inspector General's office regarding controls over cash management and banking activities identified three internal control weaknesses that could expose the Institution to fraudulent transactions and overpayments, and affect the reliability of the information in its financial system. Can you comment on these findings?

Answer: The findings addressed in the Inspector General's (IG) Management Advisory Report titled "Internal Control Weaknesses in Cash Management and Banking Activities" dated February 14, 2006, address three internal control areas concerning 1) separation of duties, 2) financial system access, and 3) the monitoring of banking contracts and fees.

1) Separation of duties: The Comptroller has implemented four of the recommendations made by the IG; five remaining comments are currently being clarified with the IG and will be resolved in a timely manner.
2) Financial Systems Access: The Office of the Comptroller and the Chief Information Officer will resolve the two comments made by the IG by June 30, 2006.
3) Monitoring Banking Contracts and Fees: One recommendation has been completed and the remaining issue will be completed by June 30, 2006, when the ongoing open competition for the Institution's banking support is completed.

Question 46. What was the cost overrun on the Patent Office Building due to the changes to the courtyard canopy and south staircase?

Answer: The cost of the Patent Office Building is expected to increase by about $25 million as a result of delay costs and scope increases to satisfy NCPC requirements. These cost increases will be entirely covered with privately raised funds.

Delay Costs include:

- extended general conditions,
- additional storage and crane rental fees,
- insurance,
- re-sequencing of work activities, re-mobilization of subcontractors

- additional protection for and temporary access routes through the re-occupied building,
- interim waterproofing at the courtyard slab in order to complete work in the basement,
- upgrade to low-iron glass,
- re-design and re-engineering costs

Scope Increases include:

- exterior south staircase
- Cultural Landscape Report,
- extensive interior landscaping,
- water feature, and analysis/interpretation of the historic fountains,
- design costs

Question 47. How did the Smithsonian deal with those cost overruns?

Answer: The Institution has taken several steps. We have renewed the fund-raising campaign for the Donald W. Reynolds Center (Patent Office building). Trust-funded initiatives and programs of lower priority related to this project have been scaled back or deferred. The reconstruction of the exterior south staircase will be timed to coincide with anti-terrorism perimeter security enhancements at this off-Mall site so that economies in construction activities can be achieved. In addition, the Institution has set aside funds received from the sale of its Victor office building to cover these costs if necessary.

VICTOR BUILDING SALE

Question 48. The Smithsonian recently sold the Victor Building at 750 9th Street in NW Washington. Why did you make the decision to sell the building?

Answer: Perhaps no real estate asset of the Smithsonian had so rapidly appreciated in value as the Victor Building. The building is in the heart of a vibrant area of revitalization in Washington, D.C. The public rental rates are now valued in excess of $46 square foot. The Smithsonian concluded that it was appropriate to ascertain which activities needed to remain in such costly space and which could more appropriately be housed elsewhere. A preliminary appraisal valued the building at $150 million, an appreciation of over 30 percent from the 1999 purchase price of $114 million which included the cost of building ($85 million) and build-out ($29 million). When we determined that we could rent other space at no increase to the overall rent budget and harvest the appreciation in the value of the building, this became an easy decision.

Question 49. After closing costs and repayment of debt, the Smithsonian had a net profit of approximately $59 million from the sale. How did you use those funds?

Answer: The Smithsonian will use about $25 million from the proceeds of the sale to complete privately-funded enhancements at the Patent Office Building. The remainder

will be used to restore the Trust fund which was severely depleted in the aftermath of September 11, 2001.

Question 50. Please detail for the record, a list of staff and functions that will remain in the building on a permanent basis, and others that will be relocated. Please include costs for both.

Answer: The staff and functions to be relocated, and those to remain in the Victor Building are detailed below. Costs will also be incurred for staff remaining in Victor because they have to be consolidated on lower floors. The costs include only those directly related to preparing the new space and moving into them.

	Staff *	Area (Net Rentable SF)	Fit-out and Move Costs
Staff and Functions to be Relocated			
Office of Human Resources Training	2	3,624	258,000
Office of Equal Employment & Minority Affairs	12	3,327	243,500
Center for Folklife & Cultural Heritage	104	22,376	1,707,400
Office of Planning & Project Management	25	4,686	367,200
Office of Engineering, Design & Constr.	60	12,129	936,400
Facilities Resource Management	23	3,471	285,400
Office of Human Resources	65	11,571	916,600
Office of Safety, Health & Environmental Management	31	5,715	449,400
Office of the Treasurer	13	3,764	311,300
Office of the Chief Financial Officer	5	1,868	150,100
Office of the Comptroller	82	15,716	1,383,200
Office of Contracting	66	15,647	1,173,700
Office of the Inspector General	21	4,769	408,000
Office of Sponsored Projects	24	6,812	618,900
Office of Research, Training & Services	8	3,255	203,700
New Offsite Records Storage	--	16,800	218,400
SUBTOTAL, Relocated Functions	**541**	**135,530**	**9,631,200**
Staff and Functions to Remain			
Archives of American Art	33	20,339	33,000
Smithsonian Institution Libraries – Arts	5	11,382	5,000
Smithsonian American Art Museum	176	36,030	716,800
National Portrait Gallery	75	21,953	1,393,000
Existing Storage at Victor Concourse	--	9,560	0
New Storage at Victor Concourse	--	4,000	69,100
Office of Safety, Health & Environmental Management, Occupational Health Services Division	20	6,252	20,000
Art Storage	--	6,286	672,900

SUBTOTAL, Relocated Functions	**309**	**115,802**	**2,909,800**
GRAND TOTAL	**850**	**251,332**	**12,541,000**

* Number shown includes workstations required for employees, docents, volunteers, and interns.

MAJOR SYSTEMS UPGRADING

Question 51. One of the first challenges Secretary Small took on was the complete modernization of the antiquated financial and human resources systems as well as development of an Information Technology Infrastructure. All are ongoing projects. Can you provide a detailed update on the status on these projects?

Answer:

Modernization of Financial and Human Resources Systems
In FY 2001, the Institution's primary financial system was based on a technologically obsolete commercial financial management software product that had not been supported by the software vendor since 1997. The system was difficult to maintain and could not be adapted to serve the financial management needs of all Smithsonian units. Some human resource data was available electronically through the National Finance Center of the U.S. Department of Agriculture; however, the processes for personnel action processing, benefits administration, and recruiting were not automated.

The Institution has made significant progress modernizing its financial and human resources management systems. The Institution is implementing *PeopleSoft* Enterprise Resource Planning (ERP) software products and other commercial software products in increments through FY 2010 in order to meet current and future financial and human resources management needs. On October 1, 2002, the Office of the Comptroller and Chief Information Officer implemented the first phase of the ERP financial management system—the general ledger, accounts payable, and purchasing modules and a portion of the projects, asset management, and accounts receivable modules. In FY 2005, the Office of Human Resources and the Chief Information Officer deployed the ERP Human Resources Management System (HRMS). While more work is needed to improve cost accounting for major projects, donations, and grants, the foundation financial management system is in place. The following chart identifies significant accomplishments and plans for modernizing the financial and human resources management systems during the FY 2003 to FY 2011 period.

Enterprise Resource Planning (ERP) -- Financials	
FY	**Accomplishments / Plans**
2003	• Implemented the general ledger, accounts payable, and purchasing modules and a portion of the projects, asset management, and accounts receivable modules.
2004	• Implemented customized financial reports. • Implemented a variety of enhanced edits to prevent user actions that resulted in discrepancies between the general ledger and commitment control. • Implemented enhanced edits and controls within the purchase card module to eliminate errors encountered in processing accounting entries for purchase card transactions
2005	• Implemented an interface between the Travel Manager System component of the Financials system and the Purchasing module. • Deployed the procurement management module to support contracting activities of the Smithsonian's Office of Contracting in Washington DC and the Smithsonian Astrophysical Observatory in Cambridge, MA. • Began implementation of the asset management module. • Implemented an automated bank account reconciliation process for Bank of America disbursement accounts. • Continued resolving issues with data that complicate the production of federal financial reports.
2006	• Implement the asset management module. • Began work on the full implementation of the accounts receivable and billing modules. • Enhance purchase card processing.
2007	• Begin work to upgrade *PeopleSoft* Financials from version 8.4 to version 8.9. • Complete the implementation of the accounts receivable, billing, and time and labor modules.
2008	• Continue maintenance and enhancement activities for financial modules. • Complete the upgrade to *PeopleSoft* Financials version 8.9.
2009	• Begin work on grants, contracts, and project costing modules. • Continue maintenance and enhancement activities.
2010 Continuing	• Complete the implementation of the grants, contracts, and project costing modules. • Continue maintenance and enhancement activities.

Enterprise Resource Planning (ERP) -- HR	
FY	**Accomplishments / Plans**
2005	Implemented the ERP Human Resources Management System in four phases: • Phase 1: Automated core human resource management activities: personnel action processing, a bidirectional interface with the National Finance Center for personnel actions, awards, reporting, and security. • Phase 2: Functionality for managing labor and employee relations processes including: tracking disciplinary actions, grievances and expanded approval level for actions within Smithsonian units prior to the action being routed to the Office of Human Resources. • Phase 3: Supports management of health and safety related processes. Includes clinic visit scheduling, recalls, and recordation; tracks various tests including audiometric, vision, and pulmonary function; Immunization program management; and case management for occupational and non occupational injuries and illnesses. • Phase 4: Supports succession planning, career planning, competencies, and performance management.
2006	• Maintain and enhance the HRMS modules. • Implemented applicant tracking and online recruiting, rating, and ranking functionality. • Implemented interface to supply employee training data to the Office of Personnel Management.
2007 Continuing	• Continue to maintain and enhance implemented HRMS modules.

Information Technology Infrastructure Development
The Institution continues to experience growth in the use of its networked computer workstations and network-provided office automation support services. A robust, reliable, scalable, and secure network is critical to its evolving into an information technology infrastructure in which most internal and external transactions are performed electronically. In FY 2001, the IT infrastructure broke down often and was composed of:

- A wide area network connecting 42 locations in 5 states and Panama that lacked alternate paths and core switch redundancy;
- About 80 local area networks running multiple versions of the *Novell* network operating system that were operated by the Smithsonian Office of Information Technology and Smithsonian units;
- Multiple e-mail systems to serve 6000 employees.
- Ninety-eight mostly obsolete key telephone systems and private branch exchanges – the primary service provider would not maintain about 70 percent of the telephone systems because they were too old;

The Institution also needed to dramatically improve IT security and obtain a substantially better and larger data center to support growth and consolidation of the 19 small data centers and server rooms operated by Smithsonian units in the Washington metropolitan area.

Significant progress has been made modernizing and securing the Smithsonian's Information Technology Infrastructure. The Institution must continue to invest in IT Infrastructure components based on an industry best-practice replacement cycle.

The following chart identifies significant accomplishments and plans for modernizing the IT Infrastructure during the FY 2002 to FY 2010 period.

IT Infrastructure	
FY	Accomplishments / Plans
2002	• Implemented central Help Desk. • Installed gigabit Ethernet network backbone switches. • Increased desktop network access speed to 100 Mbps. • Increased network bandwidth to Museum Support Center in Suitland, MD., Internet connection, SI units in New York, and the National Zoo. • Completed installation of alternate paths for all SI locations. • Implemented Internet 2 connection. • Upgraded all Smithsonian unit *Netware* network operating systems to the same version and to a version currently supported by the vendor - *Novell*. • Conducted Voice over Internet Protocol (VoIP) telephone system pilot at National Air and Space Museum.
2003	• Implemented network operations center. • Installed redundant core switches for Mall museums. • Upgraded Smithsonian Network (SInet) to accommodate quality of service and VoIP. • Implemented on-line computer security awareness training system. • 92% of major IT systems have security plans and 8% have disaster recovery plans. • Installed VoIP telephone system at the Hazy Center of the National Air and Space Museum; • Replaced telephone systems with VoIP telephony at: (1) National Air and Space Museum on the Mall; (2) Freer-Sackler Gallery of Art; and (3) Hirshhorn Museum and Sculpture Garden.
2004	• Replaced 1,991 desktop and 113 graphics workstations. • Implemented SInet Firewall and Intrusion Detection System. • Completed consolidation of Smithsonian unit local area networks – reduced the number of *Netware* e-mail, file and print, and directory servers from 149 to 76. • 100% of major IT systems have security plans and 92% have disaster recovery plans. • Implemented emergency response and emergency broadcast systems. • Replaced telephone systems with VoIP telephone systems at: (1) National Museum of Natural History; (2) Renwick Gallery; (3) National Museum of the American Indian; (4) National Postal Museum; and (5) National Museum of African Art.

IT Infrastructure	
FY	**Accomplishments / Plans**
2005	• Replaced 1,486 desktop, 127 graphics, and 83 scientific workstations. • 100% of major IT systems have security and disaster recovery plans. • Completed pilot of Host-Based Intrusion Prevention System (HIPS) for desktop workstations. • Increased network bandwidth to Smithsonian Environmental Research Center, National Postal Museum, SI units in New York, and the National Zoo. • Continued migration to *Microsoft Active Directory, Exchange*, and *Outlook* for e-mail, file and print, and directory services. • Implemented a telephone call accounting system. • Replaced telephone systems with VoIP telephone system at: (1) New York facilities: the National Museum of the American Indian, the Cooper-Hewitt National Design Museum, and the Archives of American Art; (2) Suitland, Maryland facilities: the American Indian Cultural Resources Center, the Natural History Museum Support Center, and the Garber Facility of the National Air & Space Museum; (3) Walter Reed Greenhouse; (4) units located in L'Enfant Plaza; (5) North Capitol Street facility; (6) Anacostia Center for African American History & Culture; (7) National Zoological Park; and (8) Apollo Drive Art Storage Facility.
2006	• Replaced 1,522 desktop and 99 graphics workstations. • Relocate the Institution's primary data center and backbone network switches to Herndon, VA. • Implement desktop HIPS as part of the continuing desktop workstation replacement. • Increased network bandwidth to SI units in New York. • Implement Host-Based Intrusion Detection System (HIDS) on selected servers. • Continue the migration to *Microsoft Active Directory, Exchange*, and *Outlook* for e-mail, file and print, and directory services. • Replace public web infrastructure. • Deploy enterprise web search engine. • Replaced the telephone systems in the Smithsonian Castle with VoIP telephone system. • Install VoIP telephone system in the renovated Patent Office Building to support the Smithsonian American Art Museum and the National Portrait Gallery. • Install VoIP telephone system in the Herndon Data Center and the Capital Gallery building.

IT Infrastructure	
FY	**Accomplishments / Plans**
2007	• Continue the migration to *Microsoft Active Directory, Exchange*, and *Outlook* for e-mail, file and print, and directory services. • Replace 25% of Institution's desktop and graphics workstations. • Continue implementing desktop HIPS as part of desktop replacement program • Begin the periodic replacement of e-mail, and file and print servers on a 4-year replacement cycle.
2008 to 2010	• Continue periodic replacement of IT infrastructure components. • Continue to replace desktop, graphics, and scientific workstations on a 4-year replacement cycle. • Consolidate data centers and server rooms. • Complete migration to *Microsoft Active Directory, Exchange*, and *Outlook* for e-mail, file and print, and directory services. • Complete the transition to a fully functional IPv6 environment. • Replace PBX telephone systems at the Smithsonian Tropical Research Institute and the Smithsonian Environmental Research Center with VoIP telephony system.

TRUST FUND

Question 52. There is often confusion over the private trust fund. Can you provide a detailed description of the trust, in particular restricted versus unrestricted use, and how those funds were used in fiscal year 2005?

Answer: Much like the Federal budget, the Institution has an annual Trust Fund budget. Trust funds come in two types—Unrestricted and Restricted. Unrestricted trust funds include the net income from business activities including shops, concessions and theaters, investment income on unrestricted funds, payout from the unrestricted portion of the endowment, rental fees, royalties from product licensing, income from special events held in museums, and income from membership programs and general use gifts. Unrestricted trust funds are budgeted each year with the Board of Regents' approval to support a range of activities, including:

- salaries and benefits of senior management staff;
- compensation of most Museum and Research Center and Office directors;
- central and unit fundraising activities;
- central administrative services such as legal, contracting, HR, and accounting, that support trust-funded activities; and
- funding to supplement and enhance existing programs in research, exhibitions, education, and outreach.

Restricted trust funds are designated for specific projects or purposes by a donor, grantor, or contracting agency. Government grants and contracts are classified as restricted because they are granted to the Smithsonian by other government entities for a specific use or purpose. The Smithsonian uses Restricted funds to support a wide range of activities including:

- specific types of research
- Trust portion of construction projects;
- new and restored exhibits
- education programs;
- or other collections support and research projects

In FY 2005, the Trust budget totaled $383 million, of which Unrestricted trust funds represented only 15%.

VISITATION PROJECTIONS

Question 53. What was the projected visitation and actual visitation numbers for the two newest Smithsonian museums, the National Museum of the American Indian and the Udvar-Hazy (Air and Space Museum) in Virginia?

Answer: National Museum of the American Indian studies projected anywhere between 3 million and 4 million visitors annually. In 2004, NMAI had 820,000 visitors for the first three months the museum was open to the public. In 2005, its first full year of operation, the museum had 2.2 million visitors.

Original projections for the Udvar-Hazy Center ranged from 1.5 million to 6 million visitors annually. The first full year of operation in 2004 saw 1.6 million visitors.

Questions 54. According to your budget, visitation for the Smithsonian museums is up 24 % over fiscal year 2004. How do you account for the discrepancy between the projected and real numbers for the two new museums?

Answer: It can be difficult to make this type of projection accurately; it is more of an art than a science. As you can see by the vast range, the projections are generated for different purposes and done by different parties, from museum consultants to architects and in the case of the Udvar-Hazy Center, local state tourism officials.

The projections for the Udvar-Hazy Center assumed completion of the Metro extension to Dulles Airport by 2003. The Udvar-Hazy Center's actual visitation of 1.6 million in 2004 was in line with the lowest projection estimate which was visitation without a convenient, inexpensive transportation option such as Metro available to the visitor.

Finally, it is important to note that projections for both NMAI and the Udvar-Hazy Center were made prior to September 11, 2001, which depressed tourism across the National Capital Region.

SMITHSONIAN ACROSS AMERICA

Question 55. Can you briefly describe Smithsonian outreach programs including Smithsonian affiliates, traveling exhibitions, and educational programs?

Answer: Smithsonian outreach activities link national collections, research, and educational resources to Americans across the country. Outreach activities annually serve millions of Americans, thousands of communities, and hundreds of institutions in all 50 states, the District of Columbia, and in U.S, territories through traveling exhibitions, object loans, and the sharing of educational resources through publications, lectures and presentations, training programs, and websites.

The Smithsonian Affiliations Program coordinates a network of 143 museums and cultural centers in 39 states, and in D.C. and Puerto Rico. These Smithsonian affiliates must meet standard criteria for hosting Smithsonian collections. They pay a small annual fee, attend an annual conference, and work closely with colleagues throughout the Smithsonian to bring objects, collections, exhibitions, and related programs to their institutions.

The Smithsonian Traveling Exhibition Service (SITES) produces traveling exhibitions based upon Smithsonian museum exhibitions, collections, and interests. These exhibitions—on such topics as America's sports icons, planet Earth as seen from space, the Muppets, Chinese jades, Latino music, and First Ladies' gowns—are seen in small towns and in large cities across the nation. In FY 2005, some 56 traveling exhibitions

were hosted in 211 venues in 45 states and territories and viewed by more than 4.6 million visitors.

The Smithsonian Center for Education and Museum Studies (SCEMS) produces publications for K-12 grade teachers, websites, and distance learning modules for teachers across the U.S. Materials reach 84,000 schools, and web-based lesson plans were downloaded more than 150,000 times in FY 2005. The Center coordinates educational efforts across the Smithsonian and with other organizations, develops performance measures for educational impact, serves some 900 interns annually, and produces popular "Teacher Nights" in Washington, and other locations around the country.

The National Science Resources Center (NSRC) is an organization of the Smithsonian and the National Academies working to improve K-12 science education in the U.S. Through the implementation of its products and services, more than 800 school districts representing 20% of the U.S. are implementing research-based science education programs. Evaluations and state tests provide evidence that achievement has improved where these programs are being implemented.

The Office of Fellowships, recently renamed the Office of Research Training and Services, manages the Smithsonian Institution Fellowship Program which provides research opportunities to senior scholars and graduate students, from institutions across the U.S. and around the world. Fellows and visiting scholars work with the Smithsonian collections and research staff to increase the state of knowledge in history, art, science and cultural fields. In FY2005, ninety appointments were awarded for fellowships and short-term visiting scholars.

The Smithsonian Associates represents a "continuing education" arm of the Smithsonian. It receives no Federal funds. It produces more than 1,500 lectures, seminars, courses, performances, camp sessions, and related public programs—most in Washington, D.C., but about 25% across the nation. It features the work of Smithsonian curators and researchers and well as others in the fields of science, history, culture and the arts. It is supported entirely by trust fund allocations, gifts, grants, and income earned through ticket sales to the public and its 50,000 member households.

Question 56. Have these seen a steady increase over the last several years?

Answer: No. Most outreach programs have faced flat or decreasing federal funding,. with one program in science education zeroed out entirely. The one exception has been the fellowship program where federal funding has increased dramatically. Smithsonian trust fund support has also generally declined for these programs. Most of the programs use federal and trust funding to leverage considerable support from other sources such as gifts, contracts, grants and sales income.

The Smithsonian Affiliations federal funding has fallen from $339,000 in FY 2004 to $265,000 in FY 2006. Its Smithsonian trust fund allocation is down considerably from $1.1 million in FY 2001 to $802,000 in FY 2002 to $563,000 in FY 2006.

The Smithsonian Institution Traveling Exhibition Service's federal funding was $4,109,500 in FY 2002 and $4,400,000 in FY 2006—essentially flat aside for cost of living increases. Its trust fund allocation has fallen considerably, from $1,345,500 in FY 2001 to $983,804 in FY 2002, to $623,900 in FY2006.

The Smithsonian Center for Education and Museum Studies federal funding has fallen from $1,720,000 in FY 2003 to $1,326,000 in FY 2006. Its Smithsonian trust fund allocation is down from $567,000 in FY 2002 to $461,700 in FY 2006.

Federal funding for the National Science Resource Center was zeroed out in FY 2006, down from $287,000 in FY 2005 as it was determined through the Smithsonian's Workforce Hiring Action Plan process to convert NSRC to a fully trust-funded program. Its Smithsonian trust fund allocation was increased from $292,000 in FY 2004 to $535,000 in FY 2005.

The Office of Fellowships, recently renamed the Office of Research and Training Services, has had an essentially flat federal budget for operating salaries and expenses--$346,000 in FY 2006, $335,000 in FY 2005. Funding for fellowships has increased from $800,000 in FY 2004 to $1.6 million in FY 2005 and FY 2006. The Smithsonian trust fund allocation for staff support has been flat at $200,000.

The Smithsonian Associates receives no federal funds. Its Smithsonian trust fund allocation has been flat at about $1.3 million since FY 2003.

Question 57. How do you ensure the protection of the collection outside their museums?

Answer: Lending collection items for public exhibition, research, and education is an integral part of the Smithsonian's mission. While each Smithsonian collecting unit has specific loan policies and procedures tailored to the nature of their individual collections, the Smithsonian adheres to the following general guidelines regarding the protection of collections while on loan:

- In evaluating loan requests, Smithsonian collecting units consider the condition, fragility, and rarity of the collection item to ensure it can withstand the rigors of travel and proposed use; the ability of the borrowing institution to provide appropriate care while in transit and in its custody; and the ability of the borrowing institution to comply with all security, safety, fire protection, environmental controls, and handling requirements. The borrower's current facility report, developed by the American Association of Museums, is considered when evaluating loan requests.
- All collection loans are subject to written loan agreements, signed by the Smithsonian and the borrower, establishing the rights and responsibilities of each party, including: purpose and duration of the loan; detailed listing and condition of the collections on loan; insurance coverage; reproduction rights; and packing, shipping, handling, preservation, and exhibition / use requirements.

- The condition and terms of a loan agreement will vary depending upon the nature and requirements of the objects involved. In some circumstances, each individual object may have its own specialized requirements.
- Collections on loan must be protected against: loss; theft; physical forces and damage; mishandling; inappropriate levels of light, temperature, relative humidity; and contaminants.
- Smithsonian staff track and monitor all collections while on outgoing loan, whether singly or within the context of a traveling exhibition. Condition reports are completed to document the object's state of preservation at varying stages of the loan process.

QUESTIONS FROM CONGRESSMAN NORMAN DICKS

VISITATION

Dicks Question 1. Ms. Burke, I want to take advantage of this hearing to review some of the basic aspects of the Smithsonian's current operating situation with you so the Committee can better understand your budget. These include who is coming to the museums, the condition of the facilities and the adequacy of staffing.

Let me first ask you to review for the Committee the most recent information about visitation. The table on page 224 of your budget, which I would like you to insert in the record at this point, shows that while visitation improved in 2005, it is still about 25 percent below the level in 2001. What can you tell us about the overall visitation numbers in these tables and in particular the impact on the older museums such as Natural History, American History and Air and Space? What is your prognosis?

Answer: In FY 2005, the Institution counted 24.2 million visits to Smithsonian museums in Washington and New York, plus the National Zoo and Udvar-Hazy Center – up 24 percent from the previous year. This rebound from FY 2004 figures reflects factors such as the easing of fears about terrorism in the nation's capital and the first full year of operation of the National Museum of the American Indian facility.

While we do our best to understand the trends in visitation, it is impossible to pin down with any real precision what drives the decision to visit or not visit a particular museum. Visitation at our museums is affected by national and regional trends (such as the reaction to 9/11/01 or major national holidays), and also by factors that may affect one of our museums but not necessarily the others (such as a particularly popular exhibit or a cumbersome renovation project). But just as forecasting visitation for a unique new museum is more art than science, so is interpreting fluctuations in actual visitation.

Post September 11, 2001 visitation at the National Museum of Natural History and the National Museum of American History followed the trends experienced at the other museums. The National Air and Space Museum experienced an increase in FY 2003 followed by a precipitous fall in 2004. We have not been able to fully explain this anomaly but it may have been due in part to increased interest in the Centennial of Flight anniversary in FY 2003 and the opening of the Udvar-Hazy Center in FY 2004.

VISITS TO THE SMITHSONIAN

FY 2001–FY 2005

MUSEUM	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
MALL					
SI Castle	1,857,990	1,611,325	1,126,752	1,423,028	1,355,147
A&I Building[1]	1,167,490	938,107	841,019	250,743	3,564
Natural History	9,100,091	6,049,472	5,568,532	4,542,979	5,491,602
Air and Space/ Silver Hill [2]	9,831,447	7,568,384	10,800,305	4,586,088	6,113,032
American Indian[3]	0	0	0	112,097	2,468,524
Freer Gallery	306,065	392,380	308,839	360,231	322,175
Sackler Gallery	192,296	212,197	163,251	186,939	147,089
African Art	214,775	179,789	166,271	169,941	156,538
Ripley Center	555,183	267,011	249,819	184,679	193,995
American History	5,798,993	3,994,498	2,720,327	2,848,114	3,064,083
Hirshhorn	731,453	687,118	625,580	668,132	715,836
OFF MALL					
American Art/ Portrait Gallery[4]	0	0	0	0	0
Renwick	149,777	141,018	173,818	134,035	133,608
Anacostia[5]	0	27,339	28,353	22,017	24,098
Cooper-Hewitt	136,329	142,196	141,545	141,548	143,303
American Indian[6]	413,470	316,763	290,220	250,738	304,100
National Zoo	2,807,353	2,162,500	1,724,228	1,878,823	1,854,423
Postal	400,478	317,155	300,318	347,228	463,070
Udvar-Hazy Center[7]	0	0	0	1,490,750	1,260,971
TOTAL	**33,663,190**	**25,007,252**	**25,229,177**	**19,598,110**	**24,215,158**

[1]The Arts and Industries Building closed to the general public in January 2004. However, the Discovery Theater continued performances until November 2004 when theater operations were relocated to the Ripley Center.

[2]Installation of magnetometers in October 2003 resulted in more accurate visitor counts at NASM.

[3]The National Museum of the American Indian on the Mall opened to the public in September 2004.
[4]Closed to the public January 2000 through present.
[5]Closed to the public December 1999 through February 2002.
[6]Includes the George Gustav Heye Center, which opened in 1994, and the Cultural Resources Center, which opened in April 2000.
[7]The Udvar-Hazy Center at Dulles opened to the public in December 2003.

Dicks Question 2. Could you tell us specifically about visitation to the new Museums which appear to be significantly below the levels anticipated. For instance we remember estimates for Udvar Hazy of 2 to 6 million visitors per year and are now told it is about 1.3 million. American Indian visitation appears to be about a third less than the 3-4 million anticipated. Will these improve?

Answer: National Museum of the American Indian studies projected anywhere between 3 million and 4 million visitors annually. In 2004, NMAI had 820,000 visitors for the first three months the museum was open to the public. In 2005, its first full year of operation, it had 2.2 million visitors.

Original projections for the Udvar-Hazy Center ranged from 1.5 million to 6 million visitors annually. The first full year of operation in 2004 saw 1.6 million visitors.

We are working to improve on those visitation levels.

Dicks Question 3. We hear that tourism numbers in general for Washington are now back to pre 9/11 levels. Do you agree with this? Do you think the drop off is significantly visits by DC area families?

Answer: According to an August 11, 2005 article in the Washington Post, "Washington tourism has rebounded dramatically since the September 11, 2001, terrorist attacks with an 11% increase over three years ago." However, it should be noted that this information, provided by District tourism officials, is based on hotel room counts, and does not necessarily take into consideration local visitors.

With regard to visits by DC area residents, we have some data regarding local visitation. In the summer of 2004, we conducted an Institution-wide survey of visitor satisfaction and experiences at 14 Smithsonian museums and found that 23% of the visits were made by local residents living within 40 miles of a museum. Also, our business operations began tracking shop sales by customer zip code in FY 2003 and we have seen a fairly consistent trend of somewhat less than 30% of those transactions made by local visitors. With respect to shop sales, "local visitors" means those with zip codes within a 100-mile radius of the museums.

We are trying to gain better insight into the underlying causes of lower Smithsonian visitation post 09/11/01, but unfortunately, other than total visitors, we have little pre-09/11/01 information to baseline against.

Dicks Question 4. What does this lower level of visitation mean in terms of concession and other fee income?

Answer: FY 2005 visitation was 9 million less than FY 2001 visitation. Since the museum stores, restaurants and theatres earned approximately $.74 per visitor, another 9 million visitors equates to an additional $6.7 million in annual income.

FACILITIES

Dicks Question 5. We understand you will close the Arts and Industries Bldg this year because of safety concerns. Are there any other major closings likely because of safety issues?

Answer: The Institution does not anticipate closing other major facilities because of safety issues. However, without a substantial investment in facilities revitalization over the next decade, other building closures may be required, either for safety reasons or because of failed mechanical, electrical and other critical utility systems.

The National Museum of American History – Kenneth E. Behring Center will be closed temporarily for about eighteen months to allow major renovation of the central core of the building. This temporary planned closure will allow replacement of major systems in the building, to preclude the possibility of a future unplanned closure caused by system failure.

Dicks Question 6: What is the status of discussions on the future of Arts and Industries including your suggestion of a possible public-private partnership?

Answer: The Arts & Industries Building was closed to the public in January 2004 after an engineering survey revealed that the roof might not support a heavy snow load. Public programs that had been in the building were relocated to other Smithsonian facilities. Most of the staff have now moved out to other space (mostly leased but some to other Smithsonian buildings), and we expect to have the remaining staff re-settled by the end of 2006.

The Arts and Industries Building is important; however, in the current budgetary climate, the Institution can not take on another major revitalization project until some of the ongoing projects are completed.

The April 2005 report of the Government Accountability Office, entitled, "Facilities Management Reorganization Is Progressing, but Funding Remains a Challenge" recommended that the Secretary explore various options for funding the Smithsonian's facilities needs. In response to this recommendation, we are exploring a wide range of options, one of which is to work with the private development community to determine if there is a way to combine forces to revitalize the Arts & Industries Building, and possibly other Smithsonian properties. These discussions are in the very early phases of research,

and we will seek advice and counsel from our appropriations and oversight committees before entering into negotiations, if any.

Dicks Question 7. The long range facilities budget on page 201 of your budget shows that you are planning on about a 60 percent increase in your facilities budget for fiscal years 2008 thru 2011. How realistic do you think it is to expect increases like these in the President's budget next year? Do you have any assurances from OMB that these amounts will be in the president's request?

Answer: The Smithson's Board of Regents directed that we request from OMB what is needed to repair and maintain Smithsonian facilities. The FY 2008 and out year funding levels reflect this requirement as confirmed by the National Academy of Public Administration and the Government Accountability Office. There are no assurances that OMB will provide these funds. OMB is keenly aware of the facilities requirements and did not direct changes to the 2008-2011 figures included in the request.

Dicks Question 8. Have the Regents discussed spending a significantly larger amount of the trust fund accounts on the facility problem?

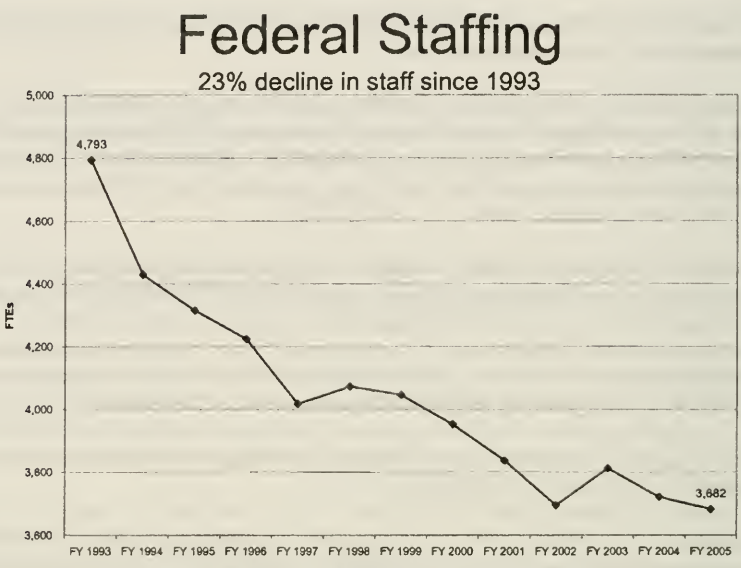
Answer: The Board of Regents is keenly aware of the Institution's facilities problems and the need for additional funds to address the problem. They have reevaluated and rejected a number of Trust options such as admission and special exhibit fees and a national fund raising appeal. They have also reevaluated the Institution's payout policy for its endowment and determined that the current annual 5% payout should not be increased. The Board of Regents continues to explore options to address the facility problem.

STAFFING

Dicks Question 9. Your briefing slides for the new budget submitted in February include a slide showing a decline in "federal" staffing for the Smithsonian of about 25 percent over the last dozen years or so. Federal FTE's decline from 4793 to 3,692 last year. The FTE's numbers in your justifications are different from this briefing chart and the President's budget includes yet another set of numbers for staffing at the Smithsonian. Can you sort out these numbers for us and tell us what has happened with staffing over the last decade or so and what you expect for 2006 and 2007?

Answer: The briefing slide that follows reflects a decline in federal staffing from FY 1993 to FY 2005 of 1,111 full time equivalents (FTEs). The data reflects a constant base to compare "like-years" and does not include new programs, anti-terrorism security increases, or new museums that have opened since 1993, such as the National Museum of American Indian and the Udvar-Hazy Center.

The difference between the FTE numbers in the President's budget and the Smithsonian justification book resulted from a late correction which shifted $7 million from Facilities Capital to the facilities S&E request and added maintenance and security FTE's. This



correction was approved by OMB after the President's budget data base had closed. The Administration has submitted a budget amendment with these corrections.

Dicks Question 10. Tell the Committee how much of this staffing loss over the last decade or so has been appropriate downsizing to reflect modern business practices and how much has been loss of needed staff you just couldn't afford?

Answer: While it is true that some of the staffing decline reflects an acceptable level of decline to reflect modern business practices, the vast majority are needed employees. The proof of this is in NAPA and GAO's review of Smithsonian facilities that highlighted the need for additional maintenance staff and the collections study which identifies major deficiencies in staffing for collections care. It can also be seen in the fact that many education and outreach programs such as "Hands on History," "Ask the Expert," and "Smithsonian in Your Classroom" have been scaled back or eliminated.

Dicks Question 11. Has the decline in staffing caused you to curtail visitor services significantly?

Answer: The 23% decline in staffing since 1993 due to base erosion has resulted in a decline in core programmatic activities related to visitor services. In some instances, services were reduced in scope; in other cases services were eliminated.

The impact of base erosion spans a variety of visitor services and has especially affected outreach programs geared to students and teachers, multimedia and interactive exhibits that stimulate and challenge the visitor, family programming in conjunction with exhibitions and other programs, publications meant to enhance the visitor experience, and reference services to accommodate scholars and the general public.

Curtailed or eliminated visitor services include:

- significant reduction in the number of student programs and school partnerships and a variety of teacher, student, children and family workshops
- elimination of "young artists" outreach program that served almost 2,000 people at 25 schools and 6 senior centers
- elimination of "hands on history" interactive exhibit that served 55,000 children per year
- reduction of free interpretative printed materials such as exhibition brochures, teacher packets for temporary exhibitions, gallery guides, and family guides
- 50% reduction in the number of issues of a widely-distributed educational publication to teachers that include teaching materials based on Smithsonian scholarship and collections
- closure of the west coast branch of the Archives of American Art
- reduction in access to archival collections

Dicks Question 12. The justifications appear to indicate that you are planning to add 460 FTE's in 2006. Do you have the funding to finance these additional FTE's in 2006? (see page 11 of justifications)

Answer: The Institution does not have the funding to fill all 460 positions in FY 2006 due to the combination of a rescission, a partially funded pay raise and legislation requiring the Institution to pay transit benefits.

NATIONAL ZOOLOGICAL PARK

Dicks Question 13. You are quoted in the Post as saying you don't want a pretty zoo, you want the gold standard. This includes a new outdoor "safari" animal park at Front Royal and an elevated tramway at the main zoo. Dr. Spelman briefed the Committee on a plan a few years ago with a cost of over $400 million which didn't materialize. Can you give us some ballpark idea of the amount of money you anticipate needing and where this will come from?

Answer: The estimated cost to renovate the entire Zoo is not yet available. The Master Planning process currently underway, and the assessments conducted on our existing buildings and overall infrastructure, will help guide decisions on how this renovation will be phased. Concept designs on each element will provide budget estimates for each project. Dr. Spelman was able to raise Congressional attention to the basic maintenance and capital improvement needs and substantial increases have supported significant improvements in this area, including major funding for Asia Trail. The Zoo's new director is committed to raising support from a variety of sources, including private individuals, corporate sponsors, increased business activity revenue, and on-going support from the Federal government. A public-private partnership is critical to achieving the goal of being recognized as the world's finest zoo, a reasonable goal for the National Zoo of the United States.

Dicks Question 14. Do you anticipate putting the Zoo through a new master planning process to deal with your new vision for the future?

Answer: Master Planning began in January 2005 and is well underway, with concept plans expected this summer. The Master Plan will be integrated with long-term collection and science plans.

Dicks Question 15. After opening Asia Trail I later this year, the next step in the Zoo's current facility plan is supposed to be completion of Asia Trail II including the new Elephant House which we was supposed to open in 2007. How much money is included in your 2007 request for Elephant House and when do you anticipate finishing the project?

Answer: The FY 2007 Request includes $13 million for Asia Trail Phase II: Elephant Trails which is expected to open in 2010.

INVESTMENT STRATEGY/TRUST FUND

Dicks Question 16. Ms. Burke, can you update the Committee on the overall fiscal situation in terms of the trust fund balances and how they have changed over the last several years. Our last report was for 2004 which showed a total of $696 million.

Answer: The $696 million figure refers to the value of the Institution's endowment. Due to a fairly positive financial market environment, the value of the endowment was $780 million at the end of FY 2005. This is slightly above the endowment's value prior to September 11, 2001.

Dicks Question 17. As the trust fund balances improve, would it be appropriate to consider increasing the contribution from the Trust towards operational and facility needs of the Institution? Has this been discussed by the Regents?

Answer: The Board of Regents recently reviewed the Institution's endowment payout policy and determined that the current policy of paying out 5% of endowment's value

annually should not be changed. They also reaffirmed the 5.5% above inflation return investment goal for the endowment. The Institution has not achieved this average return goal for the last five year period.

Dicks Question 18. We discussed the somewhat controversial issue of investing trust fund assets in hedge funds. Can you tell us why this isn't a risky investment strategy?

Answer: All investments (except U.S. treasury bills) have some risk. For the Institution's endowment value to keep up with inflation, the Institution has to maintain a diversified portfolio of investments. The Institution has designed an investment strategy for the endowment that limits the overall risk. The inclusion of hedge funds in the portfolio contributes to the portfolio's overall diversification and helps reduce the volatility of the portfolio's performance. This policy is consistent with those of other institutions of comparable size, and is essential to the fulfillment of the Regents' fiduciary duty to preserve the endowment.

Hedge funds use a range of strategies which result in varying degrees of risk. The Institution tries to control the risk in a number of ways: First, many hedge funds fail because they do not have sufficient controls and reviews (otherwise known as fund "infrastructure") to keep investors properly informed and to identify injudicious business practices. We do a thorough evaluation of a hedge fund's infrastructure as part of our due diligence process before investing in it. Second, another source of high risk is the use of leverage (i.e., debt). We specifically avoid hedge funds that have strategies which need high leverage. Finally, we limit investment in any one hedge fund. This diversification limits the impact of problems in any one fund on the total portfolio.

MISCELLANEOUS

Dicks Question 19. I know that this year you are budgeting for a $5 million increase for routine maintenance in your S&E account, from $46 million to $51 million. Your charts, however, say that this is only about half of what the industry standard would be for facilities like yours. Tell if that is correct and what the implications of this shortfall are over the long run?

Answer: The National Research Council recommends that annual maintenance funding total 2 – 4% of the physical plant current replacement value. For the Institution, this equates to a minimum of $94 million per year for maintenance and minor repair, and assumes that the facilities are in good condition. This requirement has been validated through the Facility Condition Assessment process (Facility Condition Index of March 2006 is 35.6% which, is considered poor), Reliability Centered Maintenance analysis, and the Government Accountability Office (GAO) in 2005. However, the Smithsonian is currently funded at approximately one-half this amount, or $46 million for FY 2006. At this level, the maintenance backlog continues to increase by approximately $48 million annually. Lack of maintenance has also contributed to the exponential growth of revitalization requirements as noted by the National Academy of Public Administrators in its July 2001 report, and confirmed by GAO this past year. The requested increase of

11% is therefore a very necessary increment toward implementing adequate facilities maintenance at the Smithsonian.

Long – term implications of a continuing shortfall of this magnitude include, but are not limited to:

- Extensive and permanent damage to collections due to the inability to provide a safe and secure environment for their preservation
- Catastrophic damage to buildings due to flooding and fire as critical systems fail
- Potential collateral injury to the public and staff with associated litigation and adverse publicity
- Significant increase in energy costs as system efficiencies degrade

Specific examples are:

- Water damage to collections from roof leaks as there are insufficient funds to implement a roofing preventive maintenance program for the 3.2 million square feet of roofs. There were over 50 leaks in National Museum of Natural History alone last year. The cost to repair a leak is small in comparison to the collateral damage caused to the contents of a building.
- Recent lightning strike and resultant fire on the Smithsonian Institution Building (The Castle) due to insufficient funds/staffing for a lightning protection preventive maintenance program. A capital investment is now required to restore lightning protection for 90% of all SI buildings.
- Injuries to the public and staff on escalators and elevators and resultant litigation as there are insufficient funds to implement all of the available safety features on these highly used conveyances.
- Increased energy costs associated with heating and cooling approximately 4.5 million square feet of space 24 hours a day, seven days a week due to insufficient funds to maintain proper water chemistry.

Dicks Question 20. Ms. Burke, we noted in the Regents report that an agreement had been reached to lease naming rights for the NASM hangar at Dulles to Boeing for 15 years. I know you may not agree with this characterization but could you describe this arrangement to the Committee and tell us how the revenues will be used?

Answer: It is established Smithsonian Institution practice to honor donors' gifts by recognizing them through programs, exhibitions, galleries, endowments, and buildings. The funds received from the Boeing Corporation will be used towards the construction of phase two of the National Air and Space Museum-Steven F. Udvar-Hazy Center. This phase encompasses the restoration hangar, archives, a conservation center and space for collections currently housed at the Garber Facility in Silver Hill Maryland. Under the 1996 legislation authorizing the construction of the Udvar-Hazy Center, all construction must be privately funded. The Boeing Corporation gift helps us honor the commitment made to Congress, and recognition of the company's generosity was bestowed accordingly.

Dicks Question 21. We have previously discussed compensation policies for the Smithsonian. Could you update the Committee on executive compensation policies by telling us how many employees are paid at levels above the maximum level payable to a career civil servant in the Executive Branch and also provide a list separately to the Committee of positions with **total** compensation in excess of $200,000 with the amount of such total compensation in 2005.

Answer: As of December 2005 no Federal employees received salary above $208,100, the maximum payable rate for career civil servants (Senior Executive Service) in the Executive Branch. As of December 2005, 23 Trust employees received salary above $208,100 and 28 employees received total compensation (salary and bonuses) above $200,000. A list of positions with total compensation in excess of $200,000 in 2005 has been provided to the Subcommittee.

QUESTIONS FROM CONGRESSMAN JIM MORAN

FACILITIES MAINTENANCE

Moran Question 1. I am somewhat familiar with the National Academy of Public Administrators and the General Accountability Office's validation of your maintenance and facilities backlog. NAPA calls for a 10 year program of revitalization to address this shortfall funded at $150 million per year. GAO has recommended a 9 year plan at $253 million per year. The 2007 budget requests $107 million for the revitalization program, up from $50 million in 2000 but still well short of the GAO and NAPA targets.

How have you prioritized the facilities maintenance funds Congress has provided so far?

Answer: The Smithsonian has a well-established process for setting priorities for facilities revitalization and major (capital) repair. During budget development for both the Facilities Capital and Facilities Maintenance programs, requirements are rated against a Priority Matrix (copy attached) that parallels OSHA's Risk Assessment Codes (RAC). The RAC codes measure the severity of the threat from the most catastrophic life-threatening conditions requiring immediate attention (category I) to items that are needed but can be deferred (Category IV). RAC codes are in common use throughout the Federal government.

Use of the Priority Matrix allows the Institution to direct available resources to correct the most urgent problems first. Budgeted projects typically include:

- Work needed to correct hazardous conditions that pose a serious threat to public or employee safety or health, or are required to meet mandated life safety or health codes
- Repair or replacement of building shell or utility components or systems experiencing active failures, such as roof or facade leaks or HVAC or electrical

equipment breakdowns that pose an immediate risk of damage to the collections or major disruption of program activities

- Fire and life safety, accessibility, and security modifications that are required to meet life safety or health codes within an established timeframe
- Major repair or replacement of building shell or utility components or systems that are in imminent danger of failure, such as roof leaks or electrical equipment that requires more frequent than normal maintenance, or HVAC systems whose components are failing at an increasing rate
- Predicted renewal requirements, based on normal life span and observable condition of building shells and systems

In applying the priorities to develop the five-year program, the staff considers other factors that influence how and when projects might be accomplished, including the potential for disruption to the visiting public and the extent to which work of differing priorities should be undertaken at the same time in a particular building in order to take advantage of better pricing and scheduling efficiencies. Commitments to donors for work such as revitalization required in areas slated for new permanent exhibits are also considered. The overall impact on the public can become an important consideration that might dictate completing work in the larger, more visited facilities before beginning comparably urgent work in those less visited. The availability of space in which to relocate staff and collections that would be at risk while the work is performed also affects the timing of projects. All of these factors are carefully weighed against the potential risk associated with deferral of critical work.

After the project managers and other staff have applied the priority matrix using their intimate knowledge of conditions of the buildings and systems, the projects are compiled into a proposed five-year capital program that is then vetted with the museum directors, and presented to the Capital Planning Board, led by the Deputy Secretary and Chief Operating Officer. The results of this deliberation are presented to the Smithsonian Secretary for his final approval and submitted as part of the annual budget.

Because of the close relationship between the under funding of facilities maintenance and consequent increases in revitalization requirements, the Institution develops its maintenance program in parallel with the capital program. Overall maintenance funding is currently just over 1% of the current replacement value (CRV) of the Institution's physical plant, against an industry standard of 2-4% of CRV. Sustained capital funding at the level requested in FY 2007 combined with adequate maintenance funding at the GAO recommended level would allow the Institution to eliminate the revitalization backlog by FY 2024.

Facility Revitalization and Construction Project Priority Codes

Priority Codes (PC) derived from the Priority Code Assignment Matrix are used to rank and program funding for all revitalization and construction projects. Projects compete for resources based on assigned priority codes. Given limited resources, this is

Priority Code Assignment Matrix

CONDITION LEVEL	PROJECT TYPE: Revitalization and Renewal				Construction
PRIORITY CODES PC 1 = BY PC 2 = BY +1 PC 3 = BY +2 PC 4 = BY +3 PC 5 = BY +4	A Shell/ System Failure	B Code Compliance/ Security	C Non-routine Capital Repairs	D Energy/ Operational Efficiency	E Alterations and Modifications
I Catastrophic	PC 1	PC 1	PC 2	PC 2	-
II Critical	PC 2	PC 2	PC 3	PC 3	PC 3
III Routine	PC 3	PC 3	PC 4	PC 4	PC 4
IV Can Defer	PC 5	PC 5	PC 5	PC 5	PC 5

Notes

Condition Level Description

Condition	Level	Description
Catastrophic	I	Significant projects requiring immediate funding in order to correct severe safety hazards, active failures, and prevent the loss of facilities. ***Asset Impact: Detrimental or irreversible failure, immediate implementation.***
Critical	II	High priority projects requiring funding in the next fiscal year to avoid failure or correct serious safety/security deficiencies. ***Asset/Program Impact: Imminent failure, program begins in 1 - 3 years.***
Routine	III	Predicted work that needs funding within four years. ***Asset/Program Impact: Moderate risk, program begins in 4 - 5 years.***
Can Defer	IV	Work that can be deferred for five years. ***Asset/Program Impact: Negligible risk, program begins within 5+ years.***

Project Type Description

Project Type	Category	Description
		Revitalization and Renewal Activities
		Projects required to address advanced deterioration and avoid crippling failures in building systems. Work includes rehabilitation, renovation, replacements, capital repairs, modernization and upgrade work to incorporate new codes & standards, general ove
Shell/ System Failure	A	Examples: Root and building piping leaks, utility system and equipment failures.
Code Compliance/ Security	B	Examples: Fire detections and suppression system replacement or upgrade, life safety and accessibility modifications, and security equipment replacement/improvement and building modifications.
Non-routine Capital Repairs	C	Examples: One time repair work to correct significant problem that cannot be addressed on a routine basis, i.e., refurbishing doors for an entire facility, and replacement of individual component of HVAC system.
Energy/ Operational Efficiency	D	Examples: Projects with a seven year cost-effective payback period.
		Construction Activities
		Projects required to fulfill SI mission. Acute areas include collection storage, laboratories and research office space.
Alterations & Modifications	E	Approved master plan projects and work to sustain existing or changing missions.

Moran Question 2: What tradeoffs would occur in a flat budget if you were to commit $150 million a year?

Answer: Facilities revitalization is among the Institution's highest priorities. However, to obtain a $150 million level in the Facilities Capital account in a flat budget would require a decrease of $43 million in the Salaries and Expense (S&E) account. This is simply not feasible. It would require the elimination of over 600 personnel. The Institution has already experienced a 23% staff decline in its major museums since 1993 and it could not perform its mission if it lost another 600 people.

Moran Question 3. How much of your trust fund revenue has been or can be devoted toward this backlog?

Answer: Trust funds are already in heavy use to support the Institution's Facilities Capital program. We focus federal funds on the infrastructure revitalization needs of the Institution and Trust funds on improvements, enhancements and exhibition renewal. The following table shows the extent to which Trust funds have supported major Capital efforts.

Project	Total Cost	Federal Funds	Raised Funds
National Air and Space Museum Udvar-Hazy Center	311	22	289
National Museum of African American History and Culture	To be determined	To be determined	To be determined
National Museum of American History, Kenneth E. Behring Center, Central Core Revitalization and Star Spangled Banner Exhibit	89.2	45.9	43.3
National Museum of the American Indian	219	119	100
National Museum of Natural History, Ocean Hall Exhibit	43.9	21.7	22.2
National Zoological Part, Asia Trail I and II (Elephant Trails)	111.0	81.0	30.0
Donald W. Reynolds Center for American Art and Portraiture	298.0	173.6*	124.4

* Includes $7.6 million S&E and $166 million Facilities Capital

Moran Question 4. I know you and the Regents have struggled with this question, but I will ask it anyway. What are some sound reasons for not charging an admission fee at some of your museums. I have doubts that the public couldn't afford to pay a $1 per

person at the door, especially if they are paying hefty meals and lodging fees when visiting the nation's capital? At 25 million visitors a year, you could be halfway toward closing the facilities maintenance gap.

Answer: The Regents periodically have discussed and rejected entrance fees, most recently in 2005 and previously in 2002, 1996 and 1986. Surveys indicate that the public strongly opposes an entrance fee at the Smithsonian, as they have a clear understanding that most of our activities are funded with their tax dollars already, via federal appropriations. An entrance fee is highly regressive, and would fall most heavily on those least able to afford it and those the Institution is interested in attracting - - average Americans and those with families. A fee charged separately at each museum would hit even harder as families often visit two or more Smithsonian museums on a single trip.

No other federally supported museums or monuments in Washington charge fees, so to institute a fee at the Smithsonian would be inconsistent. Our analysis indicates that imposition of an entrance fee would reduce visitation, possibly by as much as 20%.

Any revenue from a fee would be reduced by operating costs, which are generally calculated at 20%. Further, our analysis indicates that to some extent, money spent at the door would not be spent in our shops and restaurants, which would further reduce the net benefit.

Four Smithsonian museums are prohibited either by law or founding bequest or both from charging admission. They are: the Freer Gallery of Art, the Hirshhorn Museum and Sculpture Garden, the National Museum of African Art, and the National Portrait Gallery.

However, the most compelling argument against an entrance fee is that it would destroy one of the hallmarks of the Smithsonian, and of Washington. Visitors from across the country and around the world come to the Smithsonian and marvel at our exhibits and our collections, and they also marvel that they can walk in the door for free.

Moran Question 5. Are you reinvesting some of your earnings from your endowment? How much? If yes, could a portion of what you reinvest in your endowment be devoted toward the backlog? It's one thing to cite best management practices for protecting the endowment, but its another to disregard it for what should be spent on facilities and maintenance.

Answer: The answer to this question varies year to year. Sometimes earnings are reinvested but in other years there are losses. The Smithsonian's Board of Regents looks at longer periods, such as five and ten years, to assess the endowment's performance. The Board of Regents established a return target for the endowment of 5.5% after inflation. This return rate allows the endowment to maintain its economic value by earning enough to cover its annual payout, its annual costs, and inflation. The endowment has not achieved this average rate of return over the last five years. Therefore, there have not been sufficient earnings to consider additional payouts from the endowment.

Moran Question 6. I note that there is only about $51 million requested for routine maintenance in 2007, considerably less than the $94 million budget recommended for maintenance if you were to follow industry standards. At this rate the maintenance problems will continue to worsen. At what point does deferred maintenance become a facilities backlog?

Answer: As maintenance and minor repairs are postponed conditions will continue to worsen. Deferred maintenance is maintenance work that is delayed to a future budget cycle, or postponed until funds are available. The failure to perform needed repair, maintenance, and renewal by normal maintenance management creates deferred maintenance. However, cyclic preventive maintenance (PM) tasks that are skipped or postponed do contribute to backlog but are not cumulative. For example, a monthly PM that is skipped for two months is counted as only one backlog item and not two. If a monthly air filter change is skipped it would not need to be changed twice; however, if skipped regularly it will cause an increase in utility costs and unpleasant odors which would necessitate coil and duct cleaning in order to restore indoor air quality and energy efficiency. Ultimately, repeated deferral of maintenance tasks will cause degradation of the equipment to the point where it may fail before its expected lifetime, requiring a capital investment to replace it and correct any collateral damage that may have been caused.

VISITATION

Moran Question 7. If it weren't for the opening of the Udvar-Hazy (1.26 million) and American Indian (2.47 million) museums, total visitations (24.22 million) would be down below the 19.598 million you experienced in 2004 and well below the 25.23 million you experienced in 2003. First, why was there such a drop in visitation in 2004?

Answer: Visits to Smithsonian facilities in fiscal year 2004 were down 22% from both fiscal years 2002 and 2003. Several factors contributed to the decline, including a significant drop in attendance at the National Air and Space Mall Museum, due in part to its audience opting to see the new Udvar Hazy Center and also a change in counting methods, the public closure of the Arts and Industries Building in January 2004, and a Code Orange Homeland Security alert around major financial institutions in Washington, D.C. and New York in August.

Moran Question 8. Second, what are your projections for future visitation rates? Are they flat or declining? What can or should be done?

Answer: The Institution tracks the number of physical visits to SI museums and the National Zoo as a key performance indicator in the Strategic and Annual Performance Plans submitted to OMB under the Government Performance and Results Act (GPRA). The performance target (intended by GPRA to be a "stretch" goal) for number of visits in fiscal year 2006 is 25.5 million. The performance target assumes a five percent overall growth in visits over fiscal year 2005 and factors in the re-opening of the Reynolds

Center (Patent Office Building), which is projected to have a 40% increase in visits over 1999 when it was last open.

Based on statistics for the first six months of fiscal year 2006 there is an 8% decrease from the same period of fiscal year 2005. Higher spring and summer visitation, along with the POB reopening, may bring the numbers up.

TRUST FUNDS

Moran Question 9. On page 225 of your budget justification booklet, you've broken trust fund expenditures into 4 categories and provided a fiscal 2006 estimate:

General Trust	$59.0 million
Donor/Sponsor-Designated	$106.0 million
Government Grants and Contracts	$109 million
Total Available for Operations	$274 million

If you secured $203 million in donor/sponsor-designated funds in 2005, why do you anticipate almost a $100 million drop in 2006? Do you have a goal or target for 2007?

Answer: Each year the Smithsonian's fundraising goals are built around the Institution's program needs, as anticipated for the coming year. Prior-year activity reflects a number of special opportunities. The Smithsonian has gone through a period of major fundraising, which included fundraising for construction of the National Air and Space Museum's Steven F. Udvar-Hazy Center, the construction of the National Museum of the American Indian's building on the National Mall and the major renovation of the Reynolds Center (Patent Office Building). The Institution received very large gifts in the course of raising money to complete these projects. The FY 2006 estimate does not anticipate a similar level of major gifts.

Fund raising goals are established annually as part of the Institution's Trust budget and presented to our Board of Regents. An estimate for FY 2007 will be made this summer.

Moran Question 10. I would consider your private fund raising efforts for Udvar-Hazy and the National Museum of the American Indian to be successful ventures. Do you agree? Do you anticipate a similar arrangement for the National Museum of African American History and Culture?

Answer: Yes, the Udvar-Hazy and National Museum of the American Indian were successful ventures. In the case of the Hazy Center, the facility was constructed entirely with non-federal funding. The National Museum of the American Indian was constructed with two-thirds federal and one third non-federal funding. Authorizing legislation requires the National Museum of African American History and Culture to be constructed with an equal share of federal and non-federal funding.

Moran Question 11. How do you balance concerns that have now been raised that too many strings have been attached to large private donations, strings that could compromise the integrity of a museum's independent and scholarly presentation of its artifacts and displays?

Answer: The Institution will not compromise the integrity of its scholarship or exhibits in search of contributions. This is clear in the agreements we reach with our donors. Every gift agreement in excess of $50,000, contains the following stipulation:

"Notwithstanding any provision in this Agreement to the contrary, the contents and presentation of all Smithsonian exhibitions and programs remains exclusively within the sole discretion of the Smithsonian. Moreover, nothing in this Agreement may be interpreted to limit the independent discretion of the Smithsonian to manage its collections and interpret its mission to increase and diffuse knowledge."