

**Sustainability Education Day**  
**Fort Lewis, Washington**  
October 30, 2003

***Five Strategies for Advancing Sustainability***

Thank you for inviting me to be with you today, and congratulations on holding this Sustainability Education Day. What a great opportunity to remember how much we've already done and how much more we can do, if we work together. White House Council on Environmental Quality Chairman Jim Connaughton sends his greetings.

My message today is simple – there is hope for sustainability from, and in, the federal government and, in fact, we have a robust agenda and are making progress. Every day, like today, I have the chance to learn about incredible stories of where the federal government is improving its environmental stewardship – at installations and in communities across America. We face lots of obstacles, too, like budgets, FTEs, infrastructure, and more. The biggest obstacle I see, though, is that in many cases we already have invented the right wheel, but through lack of integration we insist on continually trying to reinvent that wheel. We must do a better job of communicating, sharing, working together, bridging jurisdictions, and integrating.

We've Made Incredible Progress

Each of us faces obstacles every day. Too frequently, though, we fail to remember that we already have hurdled similar obstacles.

We have made significant environmental progress in America during the last 30 years. EPA recently released a draft comprehensive report on environmental progress in America. Today, we know that environmental improvement and economic prosperity go hand in hand.

For example, since 1970, our economy has grown 150 percent. During that time, emissions of key air pollutants have decreased 25 percent. Since 1970, our energy use has grown at only one-fifth of our economic growth, and renewable energy generation has increased 30 percent.

Since 1988 (and the inception of the Toxics Release Inventory program), releases of 300 toxic chemicals have been cut nearly in half (48 percent). Today, 94 percent of public drinking water systems are tested safe, up from less than 80 percent just a decade ago.

And a measure that should be included more frequently in environmental discussions (but isn't), our own health is improving – life expectancy is at a record 77.2 years, our national mortality and infant mortality rates are at all-time lows, and cancer and heart disease mortality continue to fall.

The federal government also has made significant improvements in its own stewardship. Since 1985, our buildings' energy intensity (Btus per square foot) has dropped nearly one-quarter (23%), and we have cut our greenhouse gas emissions by 2.8 million metric tons (equivalent to taking 2.1 million cars off the road in a year). And just in the last two years, we've tripled our purchase of electricity from renewable energy sources, to 632 gigawatt hours, enough to serve 60,000 households for a year.

And yet we – America, the federal government, states, our communities, and businesses -- still face many environmental challenges. I believe we will rise to meet these challenges, and we will succeed.

### Office of the Federal Environmental Executive

My office has the unique opportunity – and responsibility – to look across the federal government, at its many different activities and the many different opportunities to improve environmental conditions. The challenge is to help bring together all those success stories, share the best practices, link experts, and help integrate people, places, and issues.

The American people have high expectations for the federal government, more now than in many years, to fulfill our particular mission. To do that, we will need to be more efficient and effective than we are today. We will need to look to the long-term and not just the short. And we will need to be more multi-talented and willing to work with others than before. In short, we need to focus on sustainability.

### Sustainability in America

Although you may not read or hear much about it in the news, sustainability is alive and well in America. We aren't bragging about it, or, in many cases, even calling it that. The average American is not likely to use the term "sustainability" in everyday discussions, but the term and its values and principles are becoming more prevalent.

The U.S. has worked diligently on sustainable development overseas. Last year, in Johannesburg, Secretary Colin Powell, stated: "Ladies and gentlemen, President Bush and the American people have an enduring commitment to sustainable development. The American soul has always harbored a deep desire to help people build better lives for themselves and their children. We have always understood that our own well-being depends on the well-being of our

fellow inhabitants of this planet Earth. Perhaps President Bush expressed this American passion best when he asserted that including all the world's poor in an expanding circle of development is a great moral challenge.”

Around the world, we believe sustainable development is dependent on, and integral to, the existence of a stable, peaceful, and secure state that respects human rights, combats corruption, supports the rule of law, opens markets, protects resources, and promotes private enterprise. The President's new approach to funding such work is found in the Millennium Challenge Account, which offers \$5 billion in new funds (a total of \$15 billion through 2006) in return for improved results and accountability from developing nations. We're taking the same approach with HIV/AIDS, proposing to spend \$15 billion over the next 5 years on prevention and treatment in Africa. We also are promoting private sector investment, public-private partnerships, good governance, accountability, free trade, and resource conservation efforts as essential for sustainable development in developing nations.

At home, the U.S. government's own domestic agenda – recognizing that we already have many of the foundational elements others are still striving for – contains many aspects of a more advanced sustainability. It's helpful to remember that the National Environmental Policy Act of 1969, or NEPA, was way ahead of its time in giving us a useful compass for sustainability. Congress, 34 years ago, wrote: “[I]t is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations ... to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.”

America has developed some of the leading environmental, social, and economic initiatives in the world, and we continue to do so. Current examples include innovative legislative proposals to dramatically cut air pollution from power plants, legislative plans to improve the health of our forests, research and development of hydrogen fuel cell technologies, promotion of significantly more energy efficient products and technologies, a focus on improving education (particularly on reading, which many now call the “new civil right”), proposals to improve our health care system, a renewed emphasis on volunteerism and civic responsibility, many different approaches for how to create new jobs and improve the economy, and an increasing focus on measuring performance and progress.

### Defining Sustainability

The word “sustainability” does not flow from most Americans' lips because its meaning is frequently too distant and too amorphous. Too frequently, insiders get bogged down in the academic discussions about what might or might not be “sustainability.” Yet sustainability, in a broad sense, is a fundamental expectation

of the American people, who really just want to know whether we're headed in the right direction and whether our quality of life is going to improve.

Every day, federal employees are called upon to meet many challenges – to hurdle those obstacles – and to fulfill important missions that strive to improve our quality of life. The American people expect great things from us. In doing our job every day, we each have the opportunity, and the responsibility, to lead by example, to be a good steward of the resources with which we have been entrusted, and to be a good neighbor in our communities, and to do all that we do with excellence – in sum, to operate sustainably.

### Five Strategies for Advancing Sustainability

Our office, with our focus on promoting sustainable environmental stewardship, has tried to boil all this down to the fundamental essence of sustainability, which I believe begins with “integration.” If we are integrating environmental issues together, if we are integrating environmental issues into our mission, if we are integrating issues across jurisdictions, if we are integrating decisionmaking across time, and if we are integrating our environmental professional work into our personal lives, then we will be on the path to sustainability – and maybe even to Bill McDonough’s Shangri-La of restoration.

So here are the five strategies the federal government is trying to use to move down the road to sustainability.

#### Sustainability Strategy No. 1: Integrate our environmental work.

Of course, as a bare minimum, we have to comply with the environmental laws on the books. From the President and the Cabinet secretaries to all those in the field, we know we need to do this. This becomes all the more important as you work with your neighbors on encroachment issues, and as this Administration focuses on improving performance and using scorecards to measure how effective the federal government is at doing its job. We're working now to identify and share the best of the government's compliance assurance models.

Compliance is not enough, though. Environmental compliance is not efficiency or effectiveness or excellence. Environmental compliance is not integrated with mission. We need to be proactive and identify opportunities for improvements and adhere to the highest standards before they become requirements and impact our ability to achieve our mission.

So the first step toward sustainability has to be to integrate all the various environmental requirements and programs and initiatives into a more strategic approach. Folks in recycling, waste management, pollution prevention, and other environmental areas need to be working together – communicating ideas and solutions, planning and budgeting, strategizing, and more.

I'm a big believer in the use of management systems. Around the world in the private sector – and increasingly within the U.S. federal government – we're seeing facilities use management systems and streamline their environmental operations, cut their environmental costs, improve productivity, reduce potential liabilities, reduce noncompliance problems, find innovative ways to do their job better, and manage issues for the short- and long-term.

Our primary focus is on using environmental management systems, or EMSs. I'm proud and you should be, too, of the federal government's leadership and commitment to developing and using EMSs. To date, 20 federal facilities have had their EMSs registered to ISO 14001, the leading international standard for EMSs. More than 200 other facilities now have EMSs or are far along in developing theirs. And this year alone, more than 1,000 federal employees received training in EMS.

#### Sustainability Strategy No. 2: Integrate environmental issues into the mission.

We're working to demonstrate that environmental management systems are not just about the environment. The biggest benefit of an environmental management system is that it moves the issue of "environment" away from its current position as a separate program or office and integrates it into a facility's or agency's main operations – into its mission.

The Army recently issued a guide for commanders that does a great job of describing this approach: "An EMS is the part of an organization's overall management system that integrates environmental concerns and issues in the organization's management processes. An EMS helps organizations avoid environmental problems by increasing awareness and developing sustainable activities and processes. The EMS concept represents a fundamental change from our traditional, reactive, compliance-based, standalone environmental management programs to a proactive, impact-predicting management system that is focused on the mission and embedded in everyday business processes and mission activities. Do not be misled by the term "Environmental" in EMS. While an EMS will certainly improve environmental performance, it should enhance performance in mission areas as well, and effective implementation and operation will involve far more than the environmental staff."

Facilities across the federal government are taking steps to do just this, starting with integrating related issues, like energy, health and safety, and even security. The federal government's, and any organization's, most significant asset is its people. If they're not safe or healthy, they can't do their job and they can't fulfill the mission. And we can't just wait for problems to arise – we have to actively

prevent them. We have to prevent workplace injuries, occupational illnesses, and environmental incidents.

One of my favorite examples of an integrated management system is the Coast Guard's Baltimore shipyard. I had the chance to visit there a year ago. We met with the managers but also with the folks doing the maintenance work on the aircraft carriers and other ships. One of the workers told us about how he was initially skeptical about an environmental management system – it sounded like just another project he didn't have time for – but he was sold when they were able to reduce the use of certain hazardous materials and so improved their working conditions and productivity.

We need to be just as proactive with our resources as we are with our people. We need to prevent waste generation and emissions, reuse and recycle materials, handle and dispose of waste safely and responsibly, and excel in the efficient use of energy and water and the conservation of natural resources.

Some of my favorite posters are those from World War II calling on Americans to save all their scrap materials so they could be used for making war items – tanks, trucks, tires, and bullets. With more resources available and economic times a bit better than during World War II, today we tend to forget just how ingenious we can be – and how much time, energy, materials, and costs we can save when we put our mind to it.

This needed resourcefulness, innovation, and efficiency is created when silos are broken down and issues are looked at from a strategic, holistic, integrated approach. Across the federal government, people are beginning to do just that.

EPA recently created a laboratory for sustainable development, which will be a testing ground to develop and apply sustainability. They are initially looking at urban development and water resources, watershed management and restoration, and materials flow and recycling. They also are using their National Environmental Technology Competition to encourage students to link science, engineering, and sustainability in their design practice.

EPA and others are working to improve the federal government's stewardship of our electronic assets. A new Federal Electronics Challenge will use best practices to address issues such as toxicity, recycling, energy use, and more. Congratulations, Fort Lewis, for being one of the pioneers in this new challenge.

One area that brings together environmental and several other issues is green buildings – or sustainable or high-performance buildings. Buildings significantly impact land use, energy use, communities, workers, and the environment. We spend most of our day indoors. Buildings can be a showcase and an educational tool when done well. And they can bring together many sustainable concepts – such as environmental management systems, waste prevention and

recycling, and green product purchases – to reduce environmental impacts and improve worker conditions and productivity, increase energy, water, and material efficiency, and reduce costs and risks.

Our office recently issued a report – now up on our website, [www.ofee.gov](http://www.ofee.gov) – that for the first time describes what all the Federal government is doing – policies and practices – to “green” its building stock. We already have lots of requirements and policies and guidance in place, and we’ve made some great progress. The report also makes some recommendations, which a new federal senior interagency green building council will soon begin to tackle.

### Sustainability Strategy No. 3: Integrate environmental issues across jurisdictions.

One of my favorite parts of this job is to learn about and see the great successes from federal folks, and I hear them every day. But we do a poor job of sharing those successes. We hardly share them within any particular facility, let alone across agencies, with state or local governments, or with our communities.

To me the best benefit of an environmental management system is the intangible one of bringing together, maybe for the first time, people from different areas within a facility or operation – environment, health and safety, energy, transportation, housing, facilities, fleet, acquisition, budget, legal – and, by working together, with the blessing of senior management, you frequently see incredible creativity and improved performance.

We recently participated in a federal panel on environmental management systems. A fellow from the Aberdeen installation in Maryland said that he was so excited about the progress they had been making, through their EMS process, on improving their product acquisitions. For years, he and the environmental program had tried to get their facility to buy greener products, with little success. Through the EMS, he met someone on the procurement team who also had been trying to do this, and also had been unsuccessful. Together, they have now been able to start greening the facility’s acquisitions. Oh, and they both had been working in the same building for years and had never met.

It’s important to lead by example and to use our resources wisely. To fulfill our mission, we can’t just look inward, though. We also have to be a good neighbor – we have to work together with others in our federal family and with our hometowns. Being a good neighbor was a lot easier 50 or even 10 years ago than it is today, with communities right up to the fenceline of more and more federal facilities. We need those federal facilities and the operations and training that they support, and there are very few, if any, alternatives. We, and particularly the Defense Department, recognize this and in many communities are more actively working to address community concerns.

We need to regularly communicate with our neighbors and the public on our operations and progress. We tend not to recall those times when open communication prevented misunderstanding, but we certainly remember when our failure to provide information created headline news. With the military, you have additional national security considerations in making communications decisions, but the need to communicate more effectively with our neighbors is only growing.

We know we need to build partnerships and seek creative solutions with others in the federal government and with our communities, state governments, and others. A great example is right here at Fort Lewis. General Hill and his team have recognized that this Army facility needs to be a good neighbor – the once-distant community is now much closer thanks to growth (“encroachment” in DoD talk), and the once spacious habitat for endangered species has shrunk to mostly just the base.

So they have developed an EMS for some of their operation, they’re working to better communicate with the community about their activities, and their soldiers now use training maneuvers to catalogue habitat and species conditions. The base’s commander, General Hill, has put it in this unforgettable way: “We’re creating irreversible momentum for sustainability.”

I recently had the chance to visit the Defense Supply Center in Richmond, Virginia. They have a Superfund site and are spending a lot of time and energy working with the surrounding community. Because of this situation and the innovative leadership of the facility, they are now partnering with the City of Richmond, the county, and the State of Virginia to develop an environmental management system for the Center – and they’re addressing joint regional issues together.

The Federal Network for Sustainability – which started here on the west coast – is helping knit together federal agencies and work with states and communities on a range of environmental issues, including environmental management systems, green buildings, and electronics stewardship.

And I recently learned about Camp Butler – which covers several installations in the Pacific islands – and how they’re now working on an EMS with EPA and the Canadian government.

#### Sustainability Strategy No. 4: Integrate decisionmaking across time.

The traditional approach, in the government and elsewhere, is to ask only how much does it cost to build or make something, and ignore until later how much it costs to operate and maintain, handle, treat, dispose, and maybe even clean up something. More and more we’re recognizing, though, that we need to ask and answer those long-term questions upfront – about costs and about impacts. The

first step is to look at the life-cycle – to assess the impacts of a proposed building, of a product you need to buy, or of a new class of ships, from their creation to their disposition – and to determine the costs of various options over the life of the project. Ultimately, we need to expand those inquiries to cover even more distant generations.

Of all the federal departments, the military has the longest planning horizon. You know you're going to be here, fulfilling the same mission of providing national security, for generations to come. With this foresight and knowledge that you're going to still be here, you do long-range planning better than nearly anyone else in the world – and to be here 50 or 100 years from now, you know you have to take care of your people, resources, and communities now.

The federal government has several policies that help move us in the direction of looking at life cycle costs. Executive Order 13123 states, "Agencies shall use life-cycle cost analysis in making decisions about their investments in products, services, construction, and other projects to lower the Federal Government's costs and to reduce energy and water consumption. Where appropriate, agencies shall consider the life-cycle costs of combinations of projects, particularly to encourage bundling of energy efficiency projects with renewable energy projects." It also states, "Agencies shall optimize life-cycle costs, pollution, and other environmental and energy costs associated with the construction, life-cycle operation, and decommissioning of the facility."

Under Executive Order 13148, "To the maximum extent feasible and cost-effective, agencies shall apply [life cycle assessment and environmental cost accounting] principles ... to meet the goals and requirements of this order." Office of Management and Budget policy, known as Circular A-11, requires: "New [building] projects must be justified ... with the least life cycle costs of all the various possible solutions."

One of my favorite examples of an agency changing behavior based on a life cycle, true cost analysis is the Department of Defense's look at its transportation and fuel usage. In early 2001, the Defense Supply Board issued a report describing how fuel impacts the military's readiness. For the first time, they did a comprehensive accounting of the cost of fuel. They realized that their budgeting system was accounting for fuel at the cost of buying it at the pump, without considering the costs of transporting the fuel around the world, building and maintaining fuel depots in battle zones, cleaning up spills, manpower and lives to protect fuel lines, and more. Now, the military is actively working to reduce its use of petroleum fuels and find new fuel supplies.

In Aberdeen, Maryland, the Army is testing hybrid Humvees, which will be able to drive further on the same gallon of diesel, can operate in "stealth" mode using the battery, and can serve as a power source so that the vehicle does not need to pull a generator. The Marine Corps is one of the world's largest users of

alternative fuels, such as ethanol and natural gas, in its fleets. Naval Base Ventura County is recycling its restaurant grease into biodiesel. And those drones – the unmanned aerial vehicles we heard about and saw during the recent situations in Afghanistan and Iraq – will soon be powered by fuel cells.

But most federal budget decisions are still made on an initial cost basis, rather than looking to life cycle costs. New buildings are identified as line item costs in budgets, but most operations and maintenance are not as clearly marked, so we can't really even track the actual costs for that building to be able to do a life cycle cost review. We need to develop easy-to-use tools and targeted training to determine life cycle impacts and costs.

One step forward in using life cycle assessments is the new version of the BEES model. The federal government, with the National Institute of Standards and Technology in the lead, has developed the Building for Environmental and Economic Sustainability, or BEES, tool to assess building products based on their cost effectiveness and environmental preferability. It reduces complex, science-based technical content to decision-enabling results, using state-of-the-art life cycle assessment to measure 12 environmental impacts.

And the Navy is a leading user of life cycle assessments, as well. For example, a couple of years ago, the Navy's Mary Wenzel was charged with designing a new class of ships. She knew of the myriad of different and stringent environmental, health, and safety requirements imposed by different countries. Her goal was to design the ship class to be able to operate throughout the world unhindered by these requirements. Using a life cycle and management systems approach, the new class of ships will dramatically reduce environmental, health, and safety impacts from the ship's production, through its use, and to its ultimate disposition many years from now. She won a White House Closing the Circle Award in 2002 for her great work.

#### Sustainability Strategy No. 5: Integrate sustainability into our own lives.

Before we can get others to do all these wonderful things, we know that frequently we first have to do them ourselves. We all – as individuals, as employees, as citizens – have opportunities to lead by example. To meet our commitment to sustainability, what we do at work should also become part of the rest of our lives – we need to make a personal commitment.

I've now had the privilege of working for President Bush for seven years. I have seen his commitment to improving our quality of life, a strong focus on performance and actually getting better results, a willingness to encourage innovation, and a personal ethic of stewardship.

For example, he made sure that the Texas Governor's Mansion was one of the first facilities to participate in the City of Austin's renewable energy program. His

ranch has many sustainable design features, including a geothermal heating and cooling system, a rainwater cistern, native plants, and even a propane-powered pickup truck. And the White House recently installed its first-ever solar electric system.

Many federal facilities participate in federal, state, and local voluntary partnerships to tackle environmental and other community concerns – from litter cleanups to mentoring children. Our office has hosted tree plantings and collections of old electronics. Through these and other opportunities, federal employees can be an integral part of their communities. We need to continue to offer ways for federal employees to link the important issues of their work, their community, and their personal lives.

### Conclusion

What a great few examples of how the federal government is using five strategies to advance sustainability – by working to integrate environmental issues, integrate environmental issues into mission, integrate across jurisdictions, integrate across time, and integrate into our personal lives.

Of course, there are many, many more examples of folks on the move toward sustainability in the federal government, in states, in communities, and in businesses. They show us that improving environmental conditions can also improve economic and social conditions. And they show us that it is possible to integrate sustainability considerations into daily operations and actions and thereby help achieve, even enhance, mission readiness.

It's a tall order to meet this set of commitments to excellence and sustainability – to tear down the walls and the silos and to integrate. Yet it's a responsibility we all share.

We have invented lots of good wheels already. We know we can do this. We can perform more efficiently and effectively.

Congratulations for the significant work you have already done, keep working hard, and I look forward to working with you as together we journey toward a more sustainable America.

Thank you.