

SECTION I: AGENCY INFORMATION, POLICY AND GOALS

WASHINGTON MILITARY DEPARTMENT

Agency Number: 245

The point of contact for the Washington Military Department is:

Joe Ward, P.E.
Director, Capital Management Division
Washington Military Department
Telephone: 253-512-8811
E mail: Joseph.Ward@wa.ngb.army.mil

Responsible agency staff:

John Havens Jr., C.E.M.
Energy Manager, Capital Management Division
Washington Military Department
Telephone: 253-512-7905
E-mail: John.Havens@wa.ngb.army.mil

PLAN FOR SUSTAINABLE PRACTICES

The Washington Military Department (WMD) is committed to setting the standard in best practices in sustainability in all of its operations including fleet management, procurement, and facility maintenance and construction in successfully executing its mission to the state. WMD considers itself a leader among all state agencies in the protection of our environment and natural resources and in fulfilling its responsibilities under Executive Order 02-03. The agency's sustainability practices are founded in the philosophy of meeting the needs of the present without compromising the ability of future generations to meet their needs.

WMD's sustainability plan is founded on using staff education, personal involvement, professional innovation, and emerging technology as enablers to assure the best sustainable practices are applied to **resource conservation; recycling; and waste stream reduction**. This plan incorporates proven practices employed by other agencies – both state and federal – that have successfully impacted these three areas of emphasis.

WMD will focus on the following activities and objectives, both short and long term, in implementing this plan.

1) The **use of environmentally friendly products** where available in all agency operations. This includes the use of “green” janitorial products that minimize exposure impacts to employees; that minimize impacts to indoor air quality; and reduce the potential for hazardous waste stream generation. This is currently a WMD practice. Additionally, in January 2004, WMD will begin using “green” solvents in equipment parts washes/solvent baths as these products become available through the state and federal supply systems, to improve air quality, minimize risks to employee health, and reduce our hazardous material waste stream.

2) Adopt the requirements of both the Green Building Councils “LEED” and US Army’s “SPIRIT” requirements for the certification of new facility construction as “green buildings.” The new Spokane Readiness Center, with a design start in the fall of 2003, will be designed and constructed to meet the “LEED” bronze standard. **Beginning in 2006, all new WMD facilities will be designed, constructed, and operated to the “LEED” silver standard/”Spirit” gold standard for sustainable buildings.**

3) **Reduce potable water demand statewide.** WMD will continue to retrofit existing facilities with low flow fixtures and experiment with new products – such as “waterless” urinals – to minimize water consumption. The goal is to establish a baseline of water consumption at all facilities over the 2003-2005 biennium, and program measures in the out biennia to reduce water consumption in our facilities by 10% before 2010. This effort will include capital improvements to construct water wash down recycling systems at our most heavily used military equipment maintenance facilities – to be completed by 2015. Additionally, we will look for ways to capture non potable water sources, such as through roof top collection systems to augment irrigation water requirements, to assist in meeting this potable water reduction goal.

4) **Energy conservation and utilization of non fossil fuel energy sources** is a significant part of WMD’s plan. The agency currently uses state of the art energy management systems (EMS) in minimizing energy consumption. WMD will continue to improve upon EMS as new energy management technologies enter the marketplace. Today, WMD is programming in its capital budget the replacement of old technology heating/cooling systems with high efficiency/new technology systems (such as high efficiency boilers and ground source heat pumps) that minimize energy consumption. WMD will continue to update its lighting systems to electronic ballasts and occupied space lighting technologies. In 2003-2005, WMD will begin using “green” power. In the 2003 supplemental budget, WMD will request additional funds to move 5% of its electrical power consumption to renewable sources. The agency intends to shift 5% of its power requirements to renewable electrical generation sources per biennium until 20% of the agency’s electrical power requirement is provided by renewable sources. We hope to attain this goal by the year 2012.

5) **The use of flex fuel vehicles.** WMD's state owned vehicle fleet meets the requirements of its employees in supporting its current operations. As this fleet ages, we will replace existing vehicles with both diesel and flexible fuel vehicles. We will develop a fleet usage baseline over the period of July 2003 to June 2004 that will document mileage, fuel consumption, and maintenance/repair costs to determine an annual operating cost for each vehicle. From this, we will determine a vehicle replacement standard for all vehicle types within the fleet with the goal of creating a fleet comprised wholly of diesel and flexible fuel vehicles by 2015.

6) **Partnerships for alternative fuel stations.** The barrier to move to alternative fuel vehicles, both bio-diesel and ethanol based gasoline, is the lack of alternative fuel stations. WMD intends to partner with the US Army at Ft Lewis to design and construct an alternative fuel station along the I-5 corridor, to be available for use by 2010.

7) **Increase use of recycled office paper products.** WMD will perform a survey to determine a baseline on paper type and paper use from July 2003 to June 2004. The goal is to move to the use of 100% recycled paper in all offices over the next two biennia. Additionally, WMD will move to use printers that support 2 sided printing which should significantly reduce paper consumption.

8) Future computers and ancillary equipment will be from manufactures that have an aggressive CPU, monitor, and printer equipment recycling program. Beginning in January 2004, we intend to procure only those **computer systems that are "energy star" rated** to reduce power demand from these systems.

9) **Building upon our existing hazardous waste turn in/recycling program.** WMD has an aggressive and successful program for managing hazardous material waste streams from procurement to disposal, managed through the agency's environmental program.

10) **Improve existing and construct new storm water treatment systems.** This will minimize release of contaminants from equipment/vehicle operations back into the environment. By 2015 we will have effective storm water treatment systems, either bio filters or mechanical filters, to treat storm water run off from all our equipment and vehicle parking areas throughout the state.

The agency's Capital Management Division is responsible for maintaining and updating this plan. This division will establish a Sustainability Advisory Council with membership comprised from the three divisions within the Washington Military Department: the Army National Guard; the Air National Guard; and the Emergency Management Division. The Advisory Council will assure that the agency continues to implement best practices that further this plan. The Capital Management Division

will be responsible for publishing periodic sustainable practices information packages for electronic distribution to all agency staff; to communicate the content of this plan and other programs and policies the agency adopts relating to sustainable practices; minutes of meetings of the advisory council; and the successes of the agency in meeting the objectives of this plan.

In accordance with Executive Order 02-03, the Washington Military Department will deliver an annual report beginning October 15, 2004, and on every October 15 thereafter, to the Office of Financial Management, on its progress in implementing this plan and meeting the long term goals outlined in the executive order.

SECTION II: REPORTING ON OBJECTIVES

In order to meet the goals of the WMD sustainability plan, we have instituted these measures for each of our objectives (in bold):

1. **Use of environmentally friendly products.** As Central Stores has brought on new, more environmentally responsible products, WMD has brought them into use in our facilities. Glass cleaner, tub and tile cleaner, hand soap, vehicle cleaner, spot and mildew remover, concrete cleaner, toilet cleaner and dish soap are all examples of “green” products that we have incorporated into our normal operations as they have become available to us. We intend to switch to environmentally friendly wax as well during the next three years, as our floors need to be stripped in their normal maintenance cycle. WMD currently buys only toilet paper and towel products that have recycled content in them for all of our facilities.
2. **Adopt the requirements of both the Green Building Councils “LEED” and US Army’s “SPIRIT” requirements for the certification of new facility construction as “green buildings”.** Our new Spokane Readiness Center, currently in the design phase, has been projected to meet the US Army “SPIRIT” silver rating, which should approximately equate to a “LEED” rating of bronze. Our aviation readiness center being designed for Ft. Lewis, is being designed to meet a minimum of “SPIRIT” gold and “LEED” silver requirements.
3. **Reduce potable water demand statewide.** WMD is in the process of establishing a baseline for water use that we can then use to lower our consumption. Our new facilities are being designed with this objective in mind by having low flow fixture technologies designed into these facilities from the very conception.
4. **Energy conservation and utilization of non fossil fuel energy sources.** WMD continues to excel in energy conservation as a direct result of the aggressive energy conservation program and practices that were put into

normal use in the early 1990's, and continue to be used today in our construction, remodeling, and maintenance practices. To date we can document avoided energy use of over 970,000 MBTU since 1994. When our energy conservation program was first instituted in 1991, WMD's average annual energy use per square foot was .103 MBTU. This past year it was below .050, or a drop of more than 50% average annual use per square foot. Our success in this area is tempered by a 2004 supplemental budget request for buying "green" power that was denied. WMD will keep trying to accomplish our green power goal, but lack of funding specifically for sustainability continues to be a significant issue.

5. **The use of flex fuel vehicles.** WMD has purchased two vehicles that use compressed natural gas (CNG) as a secondary fuel, as well as replacing five of our maintenance fleet vehicles with diesel powered vehicles capable of using bio-diesel as it becomes more readily available. We intend to keep replacing our fleet vehicles with vehicles that are better suited to our sustainability goals.
6. **Partnerships for alternative fuel stations.** Plans continue to progress for the alternative fuel station at Ft. Lewis. WMD would welcome the opportunity to partner with other agencies throughout the state to make alternative fuel more readily available statewide.
7. **Increase use of recycled office paper products.** WMD has requested the baseline information for office paper product use from Central Stores, and WMD has begun the transition to double sided printers and copiers, and also to the use of recycled paper.
8. **Computer systems that are "energy star" rated.** WMD now purchases and leases only "energy star" rated office equipment.
9. **Building upon our existing hazardous waste turn in/recycling program.** Our successful program continues to be a model for other agencies.
10. **Improve existing and construct new storm water treatment systems.** WMD's vehicle operational maintenance shops already have oil/water separators installed, and our environmental specialists test our injection wells and storm drains at selected sites throughout the state already. Our new facilities are being designed with water runoff in mind as well. Both have advanced filtration systems designed in. The environmental staff also have instituted a stormwater monitoring plan for each facility as well.

SECTION III: COMMUNICATION AND EDUCATION

WMD is in the process of training two individuals in a certificated sustainability program offered by Portland State University that is expected to be completed by the end of this calendar year. These individuals also were instrumental in helping to draft the Environmental Management System plan for the Army National Guard, along with several members of the ARNG and the environmental department.

SECTION IV: STATEWIDE PERFORMANCE MEASURES

A. Copy Paper Use, by Central Stores commodity code

a. 7530041001	40 cases
b. 7530041002	4 cases
c. 7530041271	46 cases
d. 7530041600	500 cases
e. 7530041601	1470 cases
f. 7530041602	116 cases
g. 7530041604	55 cases
h. 7530041607	470 cases
i. 7530041614	10 cases
j. 7530041615	5 cases
k. 7530041618	5 cases
l. 7530041620	5 cases

B. Vehicle Miles Traveled, by agency fleet vehicles as well as personal vehicles
921,797 miles

C. Fuel Purchases, by gallons and type of fuel

Unleaded	21,092.7
Diesel	424.4

D. Average Fuel Efficiency of Vehicles in Agency Fleet

18.24 MPG