Wallops Flight Facility

Environmental Management System Awareness Training

Training Overview

Wallops Flight Facility (WFF)
Environmental Management System (EMS)

- Key Elements:
  - EMS Introduction
  - Mission and the Environment
  - Environmental Policy
  - High Priorities
  - Emergency Preparedness and Response
  - Spill/Release Prevention
  - Highlights To Remember
  - Quiz

Why Have an Environmental Management System (EMS)?

NASA implements an EMS to:

- Promote effective environmental management.

An EMS reduces NASA's risk by:

- Identifying significant environmental impacts of programs and projects.
- Minimizing mission delays and costs due to failure to address these impacts.

Mission and Environment – Example 1

WFF's activities interact with the environment. Every activity has an environmental impact, whether good or bad.

WFF Activity	Causes	Effect
Aircraft Touch 'n' Go Operations.	Noise, increased air pollutants.	Air quality, quality of life issues.

An A-10 aircraft landing at WFF's runway during a training exercise. A brief landing is followed by an immediate take-off (Touch 'n' Go).

Mission and Environment – Example 2

WFF Activity	Causes	Effect
New construction or rehabilitation of existing facilities.	Increased sedimentation in surface waters and habitat degradation.	Water quality issues, wetland impacts, animal disturbance.

Silt fence installed at construction sites prevents storm water debris from entering local waterways and impacting surface water.

Mission and Environment – Example 3

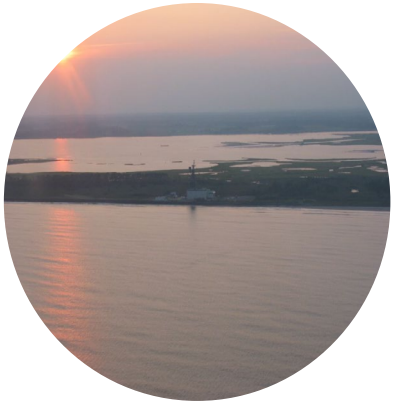
WFF Activity	Causes	Effect
Rocket launches.	Noise, air pollutants.	Protected species impacts, air quality issues.

Orbital rocket launch from Wallops Launch Pad 0-A.

EMS Policy - How Is EMS Integrated Into Your Day-to-Day Job?

The Goddard Space Flight Center (GSFC) missions expand knowledge of the Earth and its environment, the solar system, and the universe. To maintain our nation's leadership in this endeavor, GSFC commits to conducting missions in a manner that complies with environmental requirements and promotes environmental stewardship. As an integral part of all mission planning and implementation, it is GSFC's environmental policy to:

a. Comply with all applicable requirements of federal statutes, regulations, and Executive Orders (EO); state, or local, or territorial environmental laws and regulations; NASA's policy and requirements; and agreements with other agencies, industry, and organizations;
b. Incorporate environmental risk reduction and sustainable practices, to the extent practicable, throughout programs, projects, and activities, including planning, development, implementation, and operational phases;
c. Consider environmental factors and impacts throughout the life cycle of programs, projects, and activities, including planning, development, execution, and disposition activities;
d. Pursue environmental initiatives and objectives designed to protect, restore, and enhance mission resources;
e. Prevent pollution, reduce waste generation, and manage cultural and natural resources in the most effective manner possible.



Goddard Procedural Document 8500.1E – Environmental Policy and Program Management Effective 5/11/2022

EMS Policy - How Is EMS Integrated into Your Day-to-Day Job?

f. Ensure that environmental liabilities and compliance are addressed appropriately within Space Act Agreements and tenant, customer, or similar arrangements;

g. Implement pragmatic and cost-effective solutions to environmental challenges;

h. Develop collaborative partnerships with federal, state, and local regulatory agencies; international entities; and governmental, nongovernmental, and commercial organizations to leverage available and shared resources; improve materials and processes; identify, help develop, and comply with environmental requirements; prevent pollution; reduce waste generation; and manage cultural and natural resources in the most effective manner possible.

i. Ensure that hazardous waste generated solely by onsite non-NASA organizations/agencies (e.g., tenants, customers) is manifested and disposed of using the non-NASA organization's/agency's Environmental Protection Agency identification number (EPA ID), as required by 42 U.S.C. 82. Although these organizations/agencies may independently use the same companies under contract to NASA for disposal of hazardous wastes, NASA EPA ID numbers will not be used for disposing non-NASA hazardous wastes, unless waived by the appropriate authority.

EMS Policy - How Is EMS Integrated Into Your Day-to-Day Job?

j. Maintain an EMS, as implemented by NPR 8553.1, at all appropriate organizational levels. The EMS will address compliance obligations, risks, and opportunities; establish priority environmental aspects and impacts associated with GSFC's activities, products, and services; provide a framework for setting and reviewing environmental objectives and targets; and establish processes for communicating environmental information to persons working for or on behalf of NASA and the public. The EMS will be used to address all environmental risks and opportunities of internal GSFC operations and activities.

k. Continue to improve our environmental performance by:

1) Promoting awareness through education and training;
2) Integrating environmentally sustainable best management practices into our daily work activities; and
3) Exploring advances in environmental technology.

EMS Policy - How Is EMS Integrated into Your Day-to-Day Job?

Take one more look at the underlined portions of the policy on the previous slides to make sure you can explain them.

GPD 8500.1 applies to all GSFC personnel, facilities, and activities, at all permanent and temporary sites. This directive also applies to all GSFC tenant organizations, contractors, grantees, clubs, and other persons supporting GSFC or on GSFC property as required by legal and other requirements, or to the extent specified or referenced in contractual, grant, or agreement documents.

All persons, organizations, or companies should correct, or report known or suspected violations of environmental requirements.

As a result of our dynamic mission, management annually focuses on the top environmental issues, which are identified by a team of employee representatives. High Priorities may include:

- Environmental Planning
- Natural Resources
- Water Quality
- Energy Conservation
- Site Restoration
- Hazardous Waste
- Air Emissions

Check the Code 250 website <u>now</u> to view the current High Priorities:

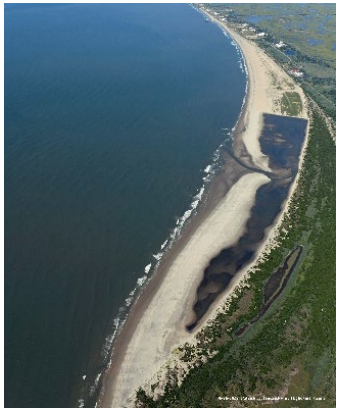
https://www.nasa.gov/goddard/memd/ems/

Environmental Planning

Why Is This Important?

New missions, programs, and projects require early environmental analysis to:

- Avoid mission delays.
- Enable environmentally sound mission success.
- Comply with federal law.



Shoreline Restoration and Infrastructure Protection Program

Blockhouse Construction

Balloon Launch

What Can You Do?

Click “Submit New Project” under **MOSI Environmental and Safety Review**.
Contact the WFF Environmental Office for any questions or concerns.

Natural Resources

Why This Is Important?

- Environmentally sensitive areas exist at WFF (e.g., wetlands and dunes).
- Threatened and endangered species make WFF their home.
- Marine mammals and reptiles are sometimes stranded on Wallops Island.

Wetlands on Wallops Island.

Loggerhead sea turtle hatchling entering the surf at Wallops Island.

Natural Resources

What Can You Do?

- Consider environmentally sensitive areas in mission planning. Click “Submit New Project” under **MOSI Environmental and Safety Review** for any new project
- Avoid posted Piping Plover nesting areas on recreational beach during the March to October nesting season.
- If you see a stranded marine mammal or sea turtle, **DO NOT APPROACH**. Call the HELP desk (x4357) or 757-824-2466.

American oystercatcher at Wallops Island.

Four newly hatched piping plover chicks on Wallops beach.

Water Quality

Why This Is Important?

- The Eastern Shore has limited potable water resources.
- Our activities may generate impacts to surface and ground water.
- Good water quality is the focus of WFF's water program.

Environmental testing ensures high quality drinking water.

Water Quality

What Can You Do?

Help WFF conserve water:

- Use the smallest amount of water that achieves the objective.
- Don't run water faucets unnecessarily.
- Promptly report water leaks.
- Reduce use of toxic and hazardous chemicals.
- Prevent pollution and recycle.
- Maintain equipment properly to avoid drips and spills.

Help keep contaminants out of the local waterways:

- Don't place grease, oil, chemicals, or soapy water down a storm drain.
- Don't place grease, oil, or chemicals down a sink, toilet, or floor drain.
- Do wash vehicles and equipment only at the D-1 Wash Rack.
- Do "Submit New Project" under **MOSI Environmental and Safety Review** for any new potential water use or discharges.

Review the Drinking Water Quality Report at

https://www.nasa.gov/goddard/memd/wallops-drinking-water/

Energy Conservation

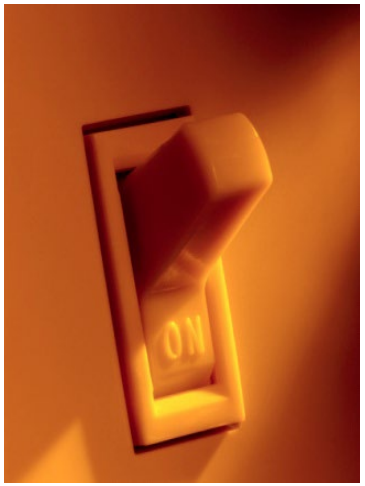
Why This Is Important?

- Reducing energy use saves money and reduces green house gas emissions.
- Using environmentally preferable products and best management practices reduces toxins in the environment, makes more efficient use of resources, and saves energy.

Solar panels on WFF Main Base

Electric Charging Station

Energy Conservation



What Can You Do?

- Turn off lights and equipment when not in use.
- Place recyclables (#1 and #2 plastic, metal, paper and cardboard) in single stream recycling containers. Bubble wrap, Styrofoam, drink cups, plastic bags, food scraps, and CDs cannot be placed in these bins. See the complete list at https://nasa.sharepoint.com/sites/gsfc-memd/SitePages/Recycling.aspx
- Purchase Energy-Star, recycled content, environmentally preferable, biopreferred EPA Water Sense, and low embodied carbon products.
- Learn more about these programs at https://nasa.sharepoint.com/sites/gsfc-memd/SitePages/Sustainable-Acquisition.aspx

Site Restoration

Why This Is Important?

- Remediation of historic contaminated sites protects human health, the environment, and returns the land for mission use.
- Institutional controls are in place to educate our work force and protect our natural resources.

D-37 Aviation Fuel Tank Farm tanks removed to prevent groundwater contamination.

What Can You Do?

- Click “Submit New Project” under **MOSI Environmental and Safety Review** before scoping a project location. Call the Environmental Office for support.

Hazardous Waste

Why This Is Important?

Proper hazardous waste managemnt protects human health and the environment.

What Can You Do?

- Annually attend or take on SATERN WFF Resource Conservation and Recovery Act (RCRA) Generator Training and Integrated Contingency Plan Training. (WFF-SH-GSFC-RCRAICP-CUR)
- Contact the Environmental Office at (757) 824-1718 before generating a new hazardous waste or whenever you have questions.
- Keep containers closed and properly labeled.

Properly labeled hazardous waste container.

Environmental Spills and Releases

Why This Is Important?

Spills and releases can contaminate local waterways and expose employees to unsafe conditions.

When a spill or release to the environment or within your building occurs:

- Protect yourself and those in the vicinity from the release.
- Report ALL onsite hazardous material and oil or petroleum product spills/releases.
  - Examples include, but are not limited to, oil leaking under a car, hydraulic fluid leaking from equipment, or leaking hazardous material containers.

Call 911 from a WFF phone or 757-824-1333 for all spills and releases, and the WFF Fire Department will respond.

Environmental Spills and Releases

What Can You Do to?

- Follow work instructions when handling fuel or chemicals that may be dangerous to humans or harmful to the environment.
- Follow equipment preventive maintenance schedule.
- Annually attend or take on SATERN WFF annual Integrated Contingency Plan (ICP) and Storm Water Pollution Prevention Plan Training (SWP3) (WFF-SH-GSFC-RCRAICP-CUR)

Mechanic performing preventative maintenance.

Air Quality

Why This Is Important?

- Maintaining compliance with requirements enables mission success.
  - GSFC's air permits regulate emissions from:
    - Boilers, generators, and space heaters
    - Solvents used for cleaning, parts washing, and laboratory work
    - Surface coating operations
    - Processing and testing equipment with vents, fume hoods, or stacks
    - Fuel and chemical storage tanks
    - Refrigerant use, handling, and disposal
- Reducing emissions helps to improve air quality and reduce health impacts.

Air Quality

What Can You Do?

- Click “Submit New Project” under **MOSI Environmental and Safety Review** when planning to purchase and install equipment that uses fuel, refrigerant, or chemicals.
- Consider using fossil fuel alternatives, non-HFC refrigerant equipment, and less volatile chemicals.

Building F-10 Boilers

Highlights to Remember

- Understand WFF's Environmental Policy.
- Consider the environment impacts of your work and take measures to reduce those impacts.
- Check WFF's High Priorities on the Code 250 website annually.
- Take appropriate training.
- Know WFF's emergency numbers.

Take The Quiz