

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

NOTICE: 05WFF-01

National Environmental Policy Act; Recurring and Proposed Future Activities at NASA Goddard Space Flight Center's Wallops Flight Facility (NASA GSFC's WFF), Wallops Island, Virginia

AGENCY: NASA GSFC's WFF

ACTION: Finding of No Significant Impact

SUMMARY: Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321, *et seq.*); the Council on Environmental Quality Regulations (CEQ) for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500-1508); NASA policy and procedures (14 CFR Part 1216, Subpart 1216.3); NASA has made a Finding of No Significant Impact (FONSI) with respect to the recurring activities and proposed future actions at WFF, in Accomack County, Virginia. The recurring activities and proposed future actions at WFF are how WFF achieves its mission of enabling scientific research and aerospace technology, facilitating the commercial development of space, and providing science and technology education, outreach programs, and innovative partnerships.

ADDRESS: Copies of the final Environmental Assessment (EA) may be viewed at the following location: http://www.wff.nasa.gov/~code250/Documents/Site-Wide_FEA.htm. A limited number of copies of the final EA are available by contacting:

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SUPPLEMENTAL INFORMATION: NASA has reviewed the Site-Wide EA prepared for recurring activities and proposed future actions at WFF. NASA has concluded that the Site-Wide EA represents an accurate and adequate analysis of the scope and level of associated environmental impacts. NASA hereby incorporates the Site-Wide EA by reference in the FONSI. NASA solicited public and agency review and comment on the environmental impacts of the proposed action through:

1. A notice of availability of the draft Site-Wide EA published in the Eastern Shore News, the Salisbury Daily Times, the Chincoteague Beacon, and the Eastern Shore Post on November 8, 2004;
2. Publication of the draft Site-wide EA on the WFF Environmental Office website;
3. Employee presentation meeting on November 18, 2004;

4. Consultations with local, state, and federal agencies; and
5. Direct mailing of the draft Site-Wide EA to interested parties.

Comments received were taken into consideration in the final EA.

The Site-Wide EA provides a framework to evaluate typical recurring activities undertaken by NASA and customers at WFF, as well as reasonably foreseeable future actions at WFF. The recurring and future actions covered by this Site-Wide EA have been assessed to ensure that they do not result in any new or substantial environmental or safety concerns. The Proposed Action is to continue existing WFF operations, expand operations, and improve facilities. The Proposed Action consists of two categories of actions – Institutional Support and Operational Components. Institutional Support includes construction, demolition of facilities, and routine site activities. Improvements to facilities would include permanent physical improvements to the site that involve buildings and equipment, utilities, other infrastructure, and routine maintenance activities. Operational Components include rockets, balloons, piloted aircraft, uninhabited aerial vehicles, autonomous underwater vehicles, payloads, tracking and data systems, scientific research programs and facilities, educational programs, the open burn area, rocket boosted projectile testing, and airfield operations. Expansion of operations would also include activities that do not require permanent facilities or infrastructure, such as research programs, facility operations, and management practices. To assess the impacts of current and future operations, a range or “envelope” of activities was identified for each type of operation, and the worst-case scenario for each envelope was evaluated.

The EA discusses the environmental consequences of the proposed action along with mitigating efforts. Various environmental factors were identified that may be affected. These include the following resource areas: physical environment such as land resources, water resources, air quality, noise, and hazardous materials and hazardous waste; biological resources including vegetation, terrestrial wildlife, migratory birds, threatened and endangered species, and marine mammals and fish; social and economic resources including population, recreation, employment and income, health and safety, cultural resources, environmental justice, and transportation; and cumulative effects.

Summary of Potential Environmental Impacts

Land Resources

The Institutional Support portion of the Proposed Action would necessarily disturb topography, soils, and possibly drainage patterns in the immediate vicinity of the specific action. NASA would minimize negative impacts by implementing WFF’s Storm Water Pollution Prevention Plan and a site-specific Sediment and Erosion Control Plan prior to any intrusive activity. The Operational Components of the Proposed Action are not anticipated to impact topography, soils, or drainage patterns.

No impacts to geology are anticipated from either component of the Proposed Action since no deep excavations are anticipated. NASA would ensure each action is compatible with existing land uses and Master Plans; therefore, no land use impacts are anticipated from either component of the Proposed Action.

No impacts to the Atlantic Ocean substrate are anticipated from the Institutional Support portion of the Proposed Action, since no construction or demolition activities will occur

over the ocean. Under the Operational Components of the Proposed Action, operations involving drone targets or rocket motors could potentially impact the Atlantic Ocean substrate when drone targets or rocket motors enter the marine environment. Drone targets used in shipboard weapons tests land on the ocean floor either whole or in pieces. Rocket motors land whole on the ocean floor. However, no significant impacts to the Atlantic Ocean substrate are anticipated, due to the small amount of such materials and the slow degradation of these materials in the deep ocean environment. No other Operational Components are likely to affect the Atlantic Ocean substrate.

Water Resources

Ground disturbing activities associated with the Institutional Support portion of the Proposed Action could affect water resources by causing increased runoff, erosion, and sedimentation. NASA would mitigate any negative impacts by implementing appropriate best management practices for stormwater management and erosion and sediment control, such as installing silt fences, revegetating bare soils, and implementing site-specific Sediment and Erosion Control Plans. Activities that would affect a wetland or waters of the U.S. would be conducted in accordance with Executive Order (EO) 11990 and 14 CFR 1216.2. Activities that would affect the floodplain would be conducted in accordance with EO 11988 and 14 CFR 1216.2. Activities that could affect coastal resources would be consistent with the Coastal Zone Management Act and the Virginia Coastal Resources Management Program.

The Operational Components of the Proposed Action could affect water resources through the accidental release of hazardous materials from operational activities or from a piloted or Uninhabited Aerial Vehicle (UAV) accident. To minimize any potential impacts, NASA would ensure that all operations occur in strict compliance with the WFF Integrated Contingency Plan (ICP).

Air Quality

The Institutional Support portion of the Proposed Action would cause temporary, short-term impacts to local air quality due to land clearing/grading, ground excavation, construction/demolition of structures, and operation of fossil-fuel burning equipment. Construction vehicles and equipment would be maintained in good working order to minimize pollutant emissions. Construction of the proposed wind turbine on WFF would have a positive impact on air quality by reducing the use of fossil fuels to generate electricity.

The Operational Components of the Proposed Action would have a minor, temporary, negative impact on local air quality through launch vehicle emissions of pollutants or accidental release of toxic gases. WFF would continue to comply with its existing air permits.

Noise

The Institutional Support portion of the Proposed Action would generate temporary, localized increases in noise levels due to heavy equipment operation. New construction may introduce permanent noise sources such as traffic; however, these impacts would be minor.

The Operational Components of the Proposed Action would generate temporary, intermittent noise from launch activities and aircraft operations; however, no significant impact is anticipated. Sonic booms are permitted to occur only over the ocean, so no negative noise impacts to humans would occur. Ocean-going vessels would be expected to experience sound resembling mild thunder.

Hazardous Materials and Hazardous Waste

The Institutional Support portion of the Proposed Action may increase the use and generation of hazardous materials. However, NASA would follow established procedures for the handling, storage, and disposal of hazardous materials and wastes to ensure that no adverse effects occur. Therefore, no significant impacts are anticipated.

The Operational Components of the Proposed Action would utilize hazardous materials that would be managed with standard procedures, including proper containment, separation of incompatible and reactive chemicals, worker warning and protection systems, handling procedures to ensure safe operations, the WFF ICP, and training. Therefore, no significant impacts are anticipated.

Radiation

The Institutional Support portion of the Proposed Action may increase the use of radiation-emitting materials. However, NASA would follow established procedures mandated by GSFC's Radiation Safety Committee for the proper handling, storage, and use of radiation-emitting material and equipment to ensure that no adverse effects occur. Therefore, no significant impacts are anticipated.

Radiation-emitting materials and equipment are used at WFF in space flight research, Earth sciences research, atmospheric research, testing, and integration of space flight hardware, and communications. Radiation-emitting materials and equipment are used and/or stored at WFF under a comprehensive radiation protection program. GSFC's Radiation Safety Committee provides oversight.

No impacts from the Operational Components of the Proposed Action are anticipated, since environmental radiation safety is and will continue to be maintained by monitoring, inspecting, and maintaining radioactive items and the areas in which these items are located. Therefore, no significant impacts are anticipated.

Vegetation

The Institutional Support portion of the Proposed Action would cause limited, permanent loss of some vegetation in areas proposed for construction, demolition, and routine site activities. This loss is not considered significant, since most new construction will occur in developed areas of the facility where vegetated areas are limited and already disturbed. Demolition and routine site activity would have less of an impact because, in most cases, vegetation would be replanted. No rare, threatened, or endangered vegetation exists at WFF.

Impacts from the Operational Components of the Proposed Action are anticipated to be minor and temporary, since vegetated areas recover after being subjected to rocket exhaust.

Terrestrial Wildlife and Migratory Birds

The Institutional Support portion of the Proposed Action would not significantly impact terrestrial wildlife or migratory birds, because most construction would occur in developed areas of the facility which provide limited habitat. Construction of the wind turbine on Wallops Island is not anticipated to negatively impact migratory birds because approved impact minimization measures would be applied.

No significant impacts from the Operational Components of the Proposed Action are anticipated because most operations generate only temporary noise on an infrequent basis. Wildlife management activities already occur at WFF to maintain safe airfield operations, so future operations should not cause additional impacts.

Threatened and Endangered Species

Any action that may affect federally listed threatened or endangered species or their critical habitats would need to be coordinated with the U.S. Fish and Wildlife Service, the Virginia Department of Agriculture and Consumer Services, the Virginia Department of Game and Inland Fisheries, and the Virginia Department of Conservation and Recreation, Division of Natural Heritage. The Proposed Action is not anticipated to impact any federally or State threatened or endangered species because of the nature and distance of the proposed activities from protected species and their habitats. WFF adheres to mitigation measures currently in place to protect these species.

Marine Mammals and Fish

Any action that may affect marine mammals or their habitat requires consultation with the National Marine Fisheries Service. No impacts to marine mammals or fish are anticipated under the Institutional Support portion of the Proposed Action, since no construction or demolition activities will occur over the ocean. No impacts to fish in creeks or bays around WFF are anticipated under the Institutional Support portion of the Proposed Action, since no construction or demolition activities would occur in the creeks or bays. It would be the responsibility of the U.S. Army Corps of Engineers to conduct the environmental review for any dredging activities that have the potential to impact marine mammals or fish. The Operational Components of the Proposed Action would have an adverse effect only if a launch vehicle or payload fell, or a target detonated, on a marine mammal or school of fish – and the risk of such an event occurring is extremely low.

Population

The Proposed Action is not anticipated to have a significant effect on population. The Institutional Support portion of the Proposed Action would have no impact on population. The Operational Components of the Proposed Action could cause a permanent minor

increase in the population of the surrounding area if operations expand and require the addition of civil service or contractor personnel at WFF.

Recreation

The Proposed Action is not anticipated to have a significant effect on recreation. The Proposed Action could have minor, temporary effects on the WFF Visitors Center during

construction and demolition activities or to surrounding recreational uses during rocket launch and retrieval.

Employment and Income

The Institutional Support portion of the Proposed Action would have temporary beneficial impacts on local employment and income, due to employees and services needed for new construction and demolition. The Operational Components of the Proposed Action could, through increased or new operations, cause small increases in the number of permanent civil service employees and contractors at WFF, which would lead to employment and income increases in the local economy. These impacts are not considered to be significant.

Health and Safety

The Proposed Action could present safety risks to workers and WFF employees during construction and demolition activities, and during WFF operations. NASA complies with guidelines established by the Occupational Safety and Health Administration, various WFF health and safety manuals, and ongoing training to ensure that no significant impacts to health and safety occur.

Cultural Resources

The Proposed Action could potentially affect cultural resources during construction and demolition activities and during WFF operations. For all existing and future actions which impact those cultural resources determined to be eligible for listing in or listed in the National Register, NASA would be responsible for complying with Section 106 and Section 110 of the National Historic Preservation Act. NASA would consult with the Virginia Department of Historic Resources and any other interested parties to identify the area of potential effect, the presence or absence of cultural resources, the effects an action would have on those resources, and the appropriate avoidance or mitigation measures.

Environmental Justice

The WFF Environmental Justice Implementation Plan examined the effects of current Federal actions at WFF and found that these actions do not disproportionately or adversely affect low-income or minority populations. The Proposed Action would continue and expand existing actions at WFF and is also not anticipated to disproportionately or adversely affect low-income or minority populations.

Transportation

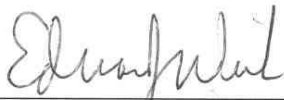
The Proposed Action would not have a significant effect on transportation. Construction and demolition activities could temporarily disrupt local traffic patterns, but this is not considered a significant impact.

Cumulative Effects

In accordance with NEPA and to the extent reasonable and practical, this Site-Wide EA considers the overall cumulative impact of the Proposed Action and other actions (both on and off WFF) that are related in terms of time or proximity. According to CEQ regulations, cumulative impacts represent the "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7)." No impacts resulting from the cumulative effects of current NASA actions or reasonably foreseeable action were identified.

NASA has identified no other issues of potential environmental concern.

Based on the final Site-Wide EA for WFF, and review of underlying reference documents, NASA has determined that the environmental impacts associated with the proposed action will not individually or cumulatively have a significant impact on the quality of the human environment. Therefore, an environmental impact statement is not required.



Edward J. Weiler
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NASA's Goddard Space Flight Center



Date