



**USAID DCHA¹ ENVIRONMENTAL THRESHOLD DECISION
USAID/DCHA/ASHA Grant Activities**

USAID/DCHA/ASHA Grant Activities
Award Number: AID-ASHA-G-11-00001

Sponsoring U.S. Organization: Medical Benevolence Foundation
Overseas Institution: Haitian Nursing College
Host Country/Region: Leogane, Haiti
Life of Grant: 09/27/2011 to 12/31/2016
Amount of Federal Grant: \$669,163 / Non-Federal Funding: \$155,500

<u>ENVIRONMENTAL ACTION RECOMMENDED:</u>	(Place X where applicable)
Categorical Exclusion:	Negative Determination: X with Conditions
Positive Determination:	Deferral:
Bureau Environmental Threshold Decision (ETD):	Approval of IEE with Conditions

USAID DCHA Bureau Environmental Officer (BEO) Comments:

This Environmental Threshold Decision (ETD) from the DCHA Bureau Environmental Officer (BEO) is to inform the grantee that the subject IEE has been found to have deficiencies related to operational impacts of the planned guest hostel and library facilities which have resulted in a *conditional* ETD approval from the BEO on October 9, 2012. These conditions, explained below, are required to be implemented by the grantee but no response by the grantee is required to address the BEO concerns.

The following potential issues were found:

Issue 1. Septic system and groundwater contamination:

Given that the IEE notes, on page 6, “A high water table that exists at the construction site that elicits concern about the ability to construct a septic system that will handle the output from the nursing school facility without contaminating ground water.” (p6) Although one of the benefits of the reed filter bed treatment systems are the low maintenance requirements, there are still measures that should be taken to ensure the system continues to be effective in protecting the shallow aquifers noted by the IEE. The functionality of the reed filter bed must be ensured through proper maintenance (i.e. prevent clogging, schedule pumping of primary storage tanks, harvest and maintain vegetation, manage weeds, monitor water level, and test treated water quality discharged from the system, etc.). These measures can increase the longevity of the system and

¹ The Bureau for Democracy, Conflict and Humanitarian Assistance (DCHA) which houses the ASHA office within USAID.



contribute to verifying its efficacy. An EPA Ohio 2007 publication titled, “Small Subsurface Flow Constructed Wetlands with Soil Dispersal System,” may provide useful design, operation and maintenance considerations for the Haitian Nursing College reed filter bed treatment system (<http://www.epa.ohio.gov/portals/35/guidance/pti3.pdf>)

Condition 1: The Haiti College of Nursing must ensure that the reed filter bed has a maintenance and management plan to ensure the system’s continued efficacy and reduce the chances of system failure or insufficiently treated wastewater discharged from the system.

Issue 2. Lack of considerations for operational impacts of proposed guest house and library constructions: There is a lack of information provided in the IEE related to building facilities and utilities that, when operated, may cause environmental impacts. Issues such as the sustainability and quality of the water supply and the waste management at the school are both issues that require attention during the design and construction phases of the project in order to anticipate impacts and put in place mitigating design features or management processes, when possible.

Water supply: No information is provided on the source of the potable water for the library or guest hostel buildings (i.e. is the source of water groundwater or bottled water?) Given the surface and groundwater contamination issues facing many Haitian regions, bottled water may be the most cost effective option for the Haitian Nursing College. Given the added energy intensity which the provision of bottled water entails, there are several operational and administrative considerations that can help reduce the energy required for transport of the bottles to school (i.e. bulk purchasing, purchasing water in large (20L) containers, offsetting bottled water).

Solid waste management: No consideration is given related to waste management at the hostel and library facilities despite the significant issue with ineffective municipal waste management that pervades in Haiti. Uncontrolled dumping and haphazard waste disposal exacerbate flood control issues and can lead to water contamination and increased risk of disease spread. For this reason waste minimization and adequate disposal through qualified waste management service providers can mitigate the waste disposal impacts while also improving the cost effectiveness of the College of Nursing’s hostel and library operations.

Energy use: Potential impacts from an increase in energy use can also be mitigated through simple mitigations to reduce waste and find cost savings. Energy efficiency appliances, promotion of energy conservation among College staff and students can all contribute to reducing the related impacts and cost of increased energy use.

Condition 2: The grantee must consider the impacts that result from the operation of proposed facilities, as listed above, and ensure they are mitigated as feasible and appropriate for the needs of the College.

Recommendation²: The BEO recommends the Haiti College consider the importance of an education initiative focused generally on environmental health and dealing with natural resource conservation, waste management, including proper handling and disposal of medical waste and other relevant issues related to the operations of education and medical facilities. Such an education campaign could serve to reduce

² “Conditions” are required for implementation by the USAID grantee. Whereas “Recommendations” are suggested course of actions, though- strictly speaking- not required.



operational impacts and find cost savings for the College. Also through curriculum materials focused on practical environmental health issues, such as medical waste management, nurses can be better prepared to confront issues they will likely face in their future careers. The college should consider the development of new, or adaptation of existing materials, to address these aspects of environmental education.

These conditions are in accordance with the “Programmatic Initial Environmental Examination (P-IEE) of Small-scale Construction and Commodity Procurement Activities for the USAID American Schools and Hospitals Abroad (ASHA) Program (ETD, 2011).” This ASHA P-IEE document can be accessed via the USAID IEE Database at: http://gemini.info.usaid.gov/egat/envcomp/document.php?doc_id=38656.

Please note that all USAID approved IEEs are entered into the USAID IEE Database,

http://www.usaid.gov/our_work/environment/compliance/database.html

This Environmental Threshold Decision (ETD) is an official communication from the DCHA Bureau Environmental Officer (BEO) outlining the actions required of the ASHA grantee to ensure the subject program’s compliance with the environmental regulatory requirements under 22 CFR 216.



ENVIRONMENTAL COMPLIANCE FACE SHEET (ECF) FOR INITIAL ENVIRONMENTAL EXAMINATION AND/OR REQUEST FOR CATEGORICAL EXCLUSION FOR DCHA/ASHA PROGRAMS

Sponsoring U.S. Organization Name:	Medical Benevolence Foundation
City, State:	Houston, TX
Key Contact:	John Haynes
Email Address:	jhaynes@mbfoundation.org

Overseas Institution Name:	FSIL Haitian Nursing School
Country:	Haiti
Award No. AID-ASHA-G-11-00001	Life of grant from 9/27/2011 to 12/31/2016
Amount of federal grant: 699163	Non-federal cost sharing: 155500

ENVIRONMENTAL ACTION RECOMMENDED:

- Request for Categorical Exclusion(s):** activities have no adverse effect (e.g., training, technical assistance; not training involving pesticides, infrastructure, water, or agriculture.)
- Negative Determination:** no significant adverse effects expected for activities which are well defined over life of the award.
 - With conditions (mitigation measures specified)
- Positive Determination:** potential for significant adverse effect of one or more activities. Appropriate environmental review needed/conducted.

SUMMARY OF FINDINGS:

All USAID projects must conform to USAID's environmental procedures (22 C FR 216) requiring evaluation and action to ensure that adverse environmental impacts are assessed and mitigated. The Request for Categorical Exclusion (RCE) or Initial Environmental Examination (IEE) for the USAID DCHA American Schools and Hospitals Abroad (ASHA) program provides the first review of the reasonably foreseeable effects on the bio-physical Environment and human welfare for the activities under the ASHA Program. The ECF, that accompanies the RCE or IEE, summarizes the recommended 22 CFR 216 determinations and provides for mandatory USAID clearances.

RECOMMENDED DETERMINATIONS:

- A **Categorical Exclusion** pursuant to 216.2c(2)(i), *Education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (e.g. construction of facilities)*, is recommended for the following ASHA activities: development of training materials, awareness raising campaign and limited commodity support, including computers, IT networking, cameras, desks, chairs, etc.
- A **Negative Determination with Conditions** pursuant to 22 CFR 216.3(a)(2)(iii), is recommended for the following ASHA activities: small-scale construction and rehabilitation of schools, universities and hospitals and/or limited commodity support, including biomedical and analytical equipment and related supplies which require mitigation measures as indicated in the IEE.



CONDITIONS:

USAID ASHA will ensure that the ASHA grantee will follow the environmental compliance conditions for the following ASHA activities classified as a **Negative Determination with Conditions**:

- Procurement of commodity including biomedical and analytical chemistry equipment and related supplies, the AOR will ensure that ASHA implementing partners will adhere to the attached “*IEE for DCHA ASHA Commodity Procurement of Biomedical Equipment and Related Supplies*” specifying Grantees planning on procuring potential hazardous commodities must ensure that sound hazardous material minimization principles and hazardous waste management considerations are addressed when acquiring equipment and/or procuring commodities.
- Construction and/or rehabilitation of schools and hospitals, the AOR will ensure that ASHA implementing partners will adhere to the “*Programmatic Initial Environmental Examination (P-IEE) of Small-Scale Construction and Commodity Procurement for ASHA Program*” which was cleared by the DCHA Bureau Environmental Officer on July 7, 2011. This ASHA Programmatic Initial Environmental Examination (P-IEE) is a global scale assessment of foreseeable environmental impacts as a result of ASHA programs. The P-IEE serves as a pre-award decisional document for purposes of the disbursement of funds to the awardee. The P-IEE provides for an analysis of foreseeable environmental impacts and mitigation measures, as assessed at a global scale. Country and project-specific environmental setting and baseline conditions will be identified by the ASHA awardee in a supplemental Country-level IEE, tiering off of the global analysis in the P-IEE.

LIMITATIONS:

This IEE does not provide an Environmental Threshold Decision for the following activities, which would require additional supplemental analysis:

1. Large-scale activities (e.g., >10,000 ft² building construction, etc.)
2. Operation in environmentally-sensitive areas such as protected areas, wetlands and/or wildlife reserves.
3. Activities that include pesticide procurement and/or use, transport, storage or disposal which would require additional analyses pursuant to 22 CFR 216.3(b), USAID's Pesticide Procedures.



USAID
FROM THE AMERICAN PEOPLE

USAID APPROVAL OF ENVIRONMENTAL ACTION(S) RECOMMENDED:

CLEARANCE:



Tami-Halmrast-Sanchez, AO
DCHA/ASHA

Date: 10/9/2012



, AOR
DCHA/ASHA

Date: 10/9/2012

CONCURRENCE:

Erika J. Clesceri, Ph.D.
Bureau Environmental Officer

Date: 10/9/12

Approved:

Disapproved:

CC: MEO/Haiti: Rob Clausen; BEO/LAC: Victor Bullen

Overseas Institution (OSI): **Faculté des Sciences Infirmières (FSIL) Haitian Nursing School, Léogâne**

Address: Belval, Léogâne, Haïti (W.I.)

Sponsoring U.S. Organization (USO): **Medical Benevolence Foundation**

Address: 3100 S. Gessner, Suite 210, Houston, TX 77063-3743

USAID/ASHA Grant No. G-11-00001

Life of Grant: from 9/24/11 to 12/31/16

ENVIRONMENTAL CONCERNS	EXISTING CONDITIONS (WITHOUT CONSTRUCTION or MAJOR RENOVATION)	POTENTIAL PROBLEMS (DUE TO CONSTRUCTION or MAJOR RENOVATION)	PROPOSED MITIGATION MEASURES
Waste water disposal / ground water contamination	Water table ranges from 2 to 5.2 meters below the site surface. Existing buildings on site cover 21,550 sq. ft.	Sewage system capacity New conditions add 2,950 sq ft of buildings but no occupant load.	None: existing sewage disposal system constructed in 2001-2 is designed with elevated nitrification fields and is functioning well within design limits.
Increase in storm water runoff	A wastewater canal collects storm water from perimeter swales on site. Existing impervious area is 21,850 sq. ft. buildings + 1,000 sq. ft. concrete walkways.	New conditions add 2,950 sq ft of buildings (impervious area). New conditions + existing will represent less than 4% impervious area total.	None: the impervious area increase is inconsequential in relation to the 690,274 sq. ft. site and will not increase the runoff from the site.
Fire Hazard	<4% of site is covered with non-combustible concrete structures, >96% is grassed with a few trees and gravel drives.	Construction activity may cause fire.	Project specifications require special precautions to prevent fires. Existing masonry perimeter wall functions as fire break.
Dust pollution	Dry conditions create dust on site from vehicle traffic on gravel drives.	Construction activity may cause dust pollution.	Project specifications require builder to use special precautions to prevent dust pollution.
Soil erosion	Site soil conditions are fully stabilized with grass cover and soil and sedimentation runoff is negligible.	Construction activity may cause soil erosion.	Project specifications require builder to use special precautions to prevent soil erosion.

NOTES:

- a. An Engineer or an Environmental Specialist, experienced with projects of comparable size and complexity, shall do environmental examination of a construction/renovation activity under a USAID/ASHA grant. S(he) will be familiar with USAID and cooperating country environmental regulations.
- b. The Engineer/Environmental Specialist shall recommend specific measures so that, when completed, the facility (or facilities) will not cause any unacceptable environmental impact.

**INITIAL ENVIRONMENTAL EXAMINATION
(IEE) NARRATIVE
USAID/ASHA GRANT ACTIVITIES**

Overseas Institution (OSI): Faculté des Sciences Infirmières (FSIL) Haitian Nursing School, Léogâne

Address: Belval, Léogâne, Haïti (W.I.)

Sponsoring Organization (USO): Medical Benevolence Foundation

Address: 3100 S. Gessner, Suite 210, Houston, TX 77063-3743

USAID/ASHA Grant No. G-11-00001

Life of Grant: from 9/24/11 to 12/31/16

Phase V Construction

1. Background and Activity Description

The purpose of the project is to construct a 418 M² single story guest hostel and enlarge an existing single story library module by 256 M².

The location of the site, in the Belval neighborhood of Leogane, is situated in an alluvial plain approximately 1.5 miles from the Bay of Port au Prince. The property is high, relative to the surrounding area, and does not experience flooding from hurricanes as does some of the land in the area. The site slopes down slightly from west to east (approximately 4 feet), and is maintained with a grass cover. Ref: attached Site plan, photographs and soil report.

The nursing school is designed to accommodate a maximum of 250 students. The hostel will accommodate 24 guests.

2. Environmental Baseline Information

The building site is approximately 35 ft. NW of an existing dean's residence and about 115 ft. SW of the existing dormitory complex. The 256 M² library expansion extends SE of the existing cafeteria/library module. A seven foot concrete and masonry security wall surrounds the perimeter of the site.

Soils in this area consist of mainly of alluvial sands, silts, and clays with irregular deposits of shells and washed gravel, typical of those laid down in a shallow sloping sea bottom. The water table ranges from 2 to 5.2 meters below the site surface.

Storm water runoff is directed away from the buildings to perimeter swales that empty into a community storm water canal along the west side of the site.

There are no local or national government environmental regulations that apply to the construction site.

3. Evaluation of Activity Issues with Respect to Environmental Impact Potential

Condition 1. – A high water table that exists at the construction elicits concern about the ability to construct a septic system that will handle the output from the nursing school facility without contaminating ground water.

Condition 2. – The nursing school addition and site improvements will increase storm water runoff.

Condition 3. – The building construction activity may cause a fire hazard.

Condition 4. – The building construction activity may cause dust harmful to workers or school occupants.

Condition 5. – The building construction activity may expose soil and cause sediment transfer from site.

4. Implemented Mitigating Actions

Condition 1. – The sewage treatment system for the facility is already complete, and designed for the full capacity of the school, which has not been reached. The additional area added to the school does not add student capacity.

The existing sewage nitrification fields are an elevated design (“reed filter bed”) with sidewalls reinforced with rock gabion structures, fed by staged septic tanks to contain and store solid waste. These tanks are fabricated of reinforced concrete and designed to withstand both interior and exterior hydrostatic forces, and were tested for leaks during construction in 2001-2.

Condition 2. – Stormwater is channeled to the existing wastewater canal via perimeter grassed drainage swales.

Condition 3. – Very little construction activity, with the exception of welding, will have the potential of a fire hazard. Specifications require special protection of the work, workers, and building occupants at any time welding, grinding, or equipment using gasoline or diesel engines are used (see Project Manual). The potential for a grass fire to spread beyond the seven foot concrete and masonry security wall is minimal.

Condition 4. – The contractor is required to facilitate dust control by the specifications in the Project Manual, specific control measures are a contract responsibility of the builder. Dust potential from loading cement bags into concrete or mortar mixers should be minimal and masonry saws are typically not used in Haiti for the cutting of concrete masonry units.

Condition 5. – There is minimal disturbance and exposure of soils associated with this project. There is no sitework required other than the grubbing of the topsoil from the building pad and the trenching of a main power line to the addition. Topsoil will be stockpiled and redistributed after construction. Stockpile will be seeded to establish a protective root mat.

5. Summary of Findings

Many environmental concerns, normally associated with construction, are not germane to this project due to the small size of the project and the fact that the addition does not involve an increase in occupant load or hard surfaces other than the addition itself. The concerns that do exist are summarized in the attached IEE matrix.

SIGNED:

A handwritten signature in black ink, appearing to read 'J. Hite', is written over a large, light-colored, curved scribble or mark.

James G. (Jimmy) Hite, AIA, LEED® AP

Hite associates, p.c.

ARCHITECTURE / ENGINEERING / TECHNOLOGY
2600 Meridian Drive / Greenville / NC 27834 / 252.757.0333