PMC-EF2a
(2.04.02)

U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION

RECIPIENT: NREL **STATE:** CO

PROJECT TITLE : Research Support Facility II, Cafeteria; NREL Tracking No. 11-003 REVISED

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
		NREL-11-003	GO10337

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:
Description:

DOE/EA-1440 Final Site-Site Wide Environmental Assessment of the National Renewable Energy Laboratory's (NREL) South Table Mountain Complex (February 2003)

DOE/EA-1440-S-I Final Supplement to Final Site-Wide Environmental Assessment of the National Renewable Energy Laboratory's (NREL) South Table Mountain Complex (May 2008)

DOE/EA-1440-S-II Final Supplement-II to Final Site-Wide Environmental Assessment of the National Renewable Energy Laboratory's (NREL) South Table Mountain Complex (November 2009)

B1.15 Siting, construction (or modification), and operation of support buildings and support structures (including, but not limited to, trailers and prefabricated buildings) within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible). Covered support buildings and structures include those for office purposes; parking; cafeteria services; education and training; visitor reception; computer and data processing services; employee health services or recreation activities; routine maintenance activities; storage of supplies and equipment for administrative services and routine maintenance activities; security (including security posts); fire protection; and similar support purposes, but excluding facilities for waste storage activities, except as provided in other parts of this appendix.

B5.1 Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

Rational for determination:

BACKGROUND

The proposed project would be for the construction and operation of a cafeteria located at the National Renewable Energy Laboratory's (NREL) South Table Mountain (STM) Complex, City of Golden, County of Jefferson, and State of Colorado. The cafeteria and associated infrastructure would be located in Site Development Zone 4 (Central Campus) in the parcel to the west of the Research Support Facility (RSF) I on the western side of the middle drainage and to north of Denver West Parkway. The proposed development area would be at approximately 39.7403°N 105.1726°W.

PROPOSED ACTION

This project would comprise the design and construction of a cafeteria at the STM site to offer food service to STM employees, workers, and visitors. This addition is intended to foster increased interactions of staff, facilitate the role of NREL's mission, and set the mark for ultra high efficiency energy usage. Currently, staff must bring their meals onsite or commute to/from the area to local establishments for meals. An onsite cafeteria would benefit the local community by decreasing vehicular traffic and the associated vehicular air emissions during lunch time.

A contractor with a design/build or design/bid/build contract would complete the work with oversight provided by NREL. Preliminary design started August 2010, and construction is anticipated to start August 2011 with completion in September 2012. Once completed, the cafeteria building interior would be set up and run by an offsite vendor.

The proposed location is in an area that has been previously disturbed due to other campus development activities such as a roadway, parking construction, and a pedestrian path traversing the middle arroyo drainage way. However, the location has been largely vacant for more than a decade. The area is currently vegetated predominantly with

smooth brome and other grasses and herbaceous plants that are both native and non-native.

The cafeteria is anticipated to be a single story building of approximately 12,600 SQFT, including an 11,600 SQFT interior, and a 600 SQFT cantilevered outdoor seating area. The rooftop would incorporate photovoltaic panels, solar hot water heaters and/or a "greenroof". The construction method would consist of a combination of slab-on-grade and drilled piers and pre-cast exterior panels. Design criteria would integrate sustainable principles and be constructed to LEED Gold standards as a minimum.

The east wall of the cafeteria building would come within 25 feet of the centerline of the middle drainage. From this point, an open-air cantilevered patio would extend eastward towards the middle drainage, and would be supported by concrete piers. This patio would extend to within 12 feet of the centerline of the middle drainage. This distance extends into the 100-foot arroyo setback specified in the NREL Campus Master Plan for STM drainage way protection and preservation, but would not result in significant impacts to habitat or wildlife. A walkway would be constructed to intersect other existing walkways along the middle drainage and to link up the cafeteria to the RSF buildings, the soon to be completed parking garage, and other existing facilities for pedestrian use. This proposed action would also include the removal the West Loop Rd, which located to the west of the RSF and the east of the cafeteria. A majority of this area would largely be regraded, reclaimed, and reseeded per NREL specifications with some impervious pedestrian walkways. A three foot high concrete cast-in-place retaining wall would be installed at the eastern edge of the outdoor seating area, located on the northeastern portion of the building. Soil grading east of the building would be done to smooth the topographic contours and tie into existing grades along the western slope of the middle drainage. Current stormwater drainage of areas west of this site would be rerouted in an underground pipe that would be located south of the proposed cafeteria, and north of Denver West Parkway. Stormwater would be conveyed through this pipe to the middle drainage via an outfall structure. This trench is anticipated to be approximately 340 ft long, and up to 10 ft deep. The width of the trench would be determined during construction, depending on the soil type(s) and soil stability encountered.

PRIOR NEPA DETERMINATIONS

This area is one of the areas on the STM complex identified in the NREL Campus Master Plan as developable. The development of this area (within Site Development Zone 4 – Central Campus) was included and assessed in the July 2003 Site-Wide Environmental Assessment (SEWA) of the National Renewable Energy Laboratory's (NREL) South Table Mountain Complex (STM) (DOE/EA-1440) with a Finding of No Significant Impact (FONSI) determination issued July 2003. Subsequently, campus infrastructure improvements in Site Development Zone 4 were analyzed in the May 2008 Supplement-I to the SWEA (DOE/EA-1440-S-I) and the November 2009 Supplement-II to the SWEA (DOE/EA-1440-S-II), which both resulted in FONSI determinations. Therefore, the Affected Environment and Impacts of the development of Site Development Zone 4 – Central Campus described in DOE/EA-1440, and infrastructure improvements analyzed in DOE/EA-1440-S-I and DOE/EA-1440-S-II are hereby incorporated by reference into this NEPA determination.

IMPACTS OF PROPOSED ACTION

The area of disturbance, including building construction, excavation, work areas, construction laydown (approximately 45 ft by 65 ft, located approximately 50 feet west of the cafeteria building), and spoils piles is estimated to be approximately 25,000 to 30,000 SQFT. This area of disturbance would be captured under the U.S. Environmental Protection Agency's Storm Water Associated with Construction Activity General Permit via existing Notice or Intents (NOIs) and added in the storm water pollution prevention plan (SWPPP) for the RSF II. This would supplement the master STM SWPPP and NREL Laboratory Level Procedure 6.2-15.

The construction area would be enclosed by construction fencing, and efforts would be made to complete all construction activities on land above the western slope of the middle drainage. Silt fencing would be installed inside the construction fence surrounding the site. The open-air cantilevered patio's concrete piers would be constructed to the west of, and outside the middle drainage itself. Minimal grading would be required in this area to level the soil. Construction access to install the piers would be made from the north or west, and heavy equipment would not drive into or across the middle drainage. Along the middle drainage, the construction fence and silt fencing would be installed on the lower western slope of the drainage. Should any unanticipated disturbances to the middle drainage occur, those disturbances would be restored and revegetated to promote wildlife habitat. The construction contractor would minimize impacts to middle drainage to the extent feasible during the construction phase of this action. Measures would include protecting the hydraulic functionality of the drainage by designating limits of construction and prohibiting heavy equipment traffic in the immediate vicinity of the drainage.

The area where the cafeteria would be constructed is relatively level, with gently sloping topography. However, some minimal soil grading would be required where the building would be constructed, and on land surrounding the proposed building, to level the area. In addition, minimal soil grading would be done east of the building, to smooth the topographic contours and tie into existing grades above the western slope of the middle drainage. An existing bioswale, north of the proposed cafeteria, and south of the east-west sidewalk would be enhanced to facilitate stormwater runoff into the middle drainage via a storm sewer line (approximately 40 feet long), which would empty into a 9 foot by 9 foot section of rip rap.

Although the middle drainage swale is adjacent to the project location, no dredge or fill of Waters of the U.S. (WOUS) including wetlands or seeps is anticipated and storm water BMPs would be used as prescribed through the SWPPP. Additionally, the U.S. Army Corps of Engineers identified no jurisdictional wetlands and no WOUS at the STM site in a recent Jurisdictional Determination. The proposed project area is also not within the 100-year floodplain per FEMA FIRM Map Panel FM08059C0281E.

There are no historic properties affected by this proposed action. The development of this area, within Site Development Zone 4, was included in the Proposed Action of the 2003 SWEA, which included Section 106 consultations with SHPO. This proposed action would not impact the amphitheatre, foot bridge, or ammunition igloo. However, excavation contractors would be briefed to be aware of the possibility of resources being unearthed and to contact EHS should any features or structures be discovered during excavation. No areas of the STM Complex are identified as Prime or Unique Farmland per USDA NRCS.

There are no federally listed threatened or endangered species within the proposed project site or within the NREL STM Complex. The STM Complex is within the Denver Urban Drainage Block Clearance Zone for the Preble's mouse. Habitat for the Ute ladies-tresses orchid or the Colorado butterfly plant does not exist on the STM as confirmed by 2010 rare plant surveys. If construction begins during the bird breeding season, nesting surveys would be conducted prior to any ground disturbing activities including grubbing and grading per NREL EHS policies. While the proposed building location encroaches upon the 100-foot buffer on either side of the drainage established in NREL 2009 Campus Buildout Plan, the buffer would be shifted to the east following removal and revegetation of West Loop Road, which would occur in February to April 2012. This would create a greenway that would facilitate unimpeded movement of wildlife through the site, and provide staff with views of the mesa and open space, Lena Gulch, and Green Mountain to the south.

Fugitive air emissions from construction activities would be controlled in accordance with the existing STM land disturbance air permit (APCD# 08JE0889L), including measures such as dust suppression via watering, stockpile management, stabilization, and minimizing soil disturbance. The construction phases would require the utilization of mobile point emission sources, such as front-end loaders, excavators, scrapers, and dump trucks, but these emissions would be negligible given the size and duration of the construction activity. Once operational, the cafeteria would have some minor air emissions from building mechanical systems and food preparation appliances, such as ranges and/or grills. These air pollutant point sources would be compliant with applicable requirements of the Colorado Air Quality Control Commission regulations, including but not limited to, Regulations No. 1, No. 2, and No. 3. Furthermore, air conditioning/ventilating systems; fires and equipment used for noncommercial cooking of food for human consumption, or cooking of food for human consumption at commercial food service establishments; janitorial activities; and individual pieces of fuel burning equipment that utilizes a gaseous fuel with a max input capacity of less than 10MMBtu/hr for personal comfort heat are exempt from Air Pollutant Emission Notice (APEN) requirements pursuant with Sections II.D.1.b.; II.D.1.e.; II.D.1.pp.; and II.D.1.ggg. of Part A of Colorado Air Quality Control Commission Regulation No. 3 (5 CCR 1001-5).

The operation of the cafeteria would result increased in consumption of water, natural gas, electricity, utilization of hazardous chemicals (i.e. cleaning supplies, etc.), generation of wastewater and grease. Water, natural gas, and electricity consumption would be limited by incorporation of sustainable design principals and features into the building, such as solar powered water heaters, photovoltaic panels, Energy Star appliances, and low-flow toilets and water-free urinals, day lighting, etc. The wastewater effluent would pass through an onsite oil/water separator designed and installed in accordance with applicable codes prior to discharging the effluent into the sanitary sewer system. The oil/water separator would be properly maintained and the accumulated oils, greases, and solids would be sent offsite for proper management at appropriately licensed disposal or recycling facilities. No generation of hazardous waste is anticipated.

NREL and all contractors would abide by established protocols and procedures for the management of munitions of concern and other potentially hazardous artifacts from former Camp George West activities/operations. NREL and all contractors would follow all federal, state, local safety and security regulations.

NEPA DETERMINATION
Based upon the information above and the analysis of the July 2003 DOE/EA-1440, May 2008 DOE/EA-1440-S-I, and November 2009 DOE/EA-1440-S-II with their Finding of No Significant Impact (FONSI) determinations, this project's impacts to the human and natural environment can be deemed less than significant, this project would qualify for Categorical Exclusions B1.15, and B5.1.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

EF2A prepared by Rob Smith on 11/26/2010 and revised on 08/10/2011.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Lori Plummer /Lori Plummer/ Date: 8/10/2011
NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

☐ Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

☐ Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
☐ Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____ Date: _____
Field Office Manager