



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

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BOSTON, MASSACHUSETTS 02114-2023

OFFICE OF THE  
REGIONAL ADMINISTRATOR

February 13, 2009

Bradley D. Keazer  
Division Administrator FHWA  
628-2 Hebron Avenue, Suite 303  
Glastonbury, Connecticut 06033

Re: Draft Environmental Impact Statement North Hillside Road Extension Mansfield,  
Connecticut (CEQ #20080529)

Dear Mr. Keazer:

The Environmental Protection Agency-New England Region (EPA) has reviewed the Federal Highway Administration's (FHWA)/Connecticut Department of Transportation's (CTDOT) Draft Environmental Impact Statement (DEIS) for the North Hillside Road Extension project in Mansfield, Connecticut. We submit the following comments in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act.

The DEIS describes the proposed extension of the North Hillside Road on the UConn Storrs Campus to the north to connect with Route 44 in Mansfield, Connecticut. The 3400-foot extension is proposed as a two-lane 32-foot-wide road intended to relieve local traffic, provide an alternate entrance to the UConn campus, and provide access to the proposed North Campus development area. Funding for the project would be provided in part by a 6 million dollar federal appropriation to be administered by CTDOT.

The attachment to this letter highlights concerns related to wetlands, air quality and secondary/cumulative impacts for your consideration as you develop the Final Environmental Impact Statement (FEIS) for the proposed project. Based on our review of the DEIS we have rated the EIS "EC-2 - Environmental Concerns-Insufficient Information" in accordance with EPA's national rating system, a description of which is attached to this letter. Please contact

617-918-1010

Internet Address (URL) • <http://www.epa.gov/region1>

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Timothy Timmermann (617-918-1025) of EPA's Office of Environmental Review with any comments or questions about this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Elizabeth A. Higgins". The signature is fluid and cursive, with the first name being the most prominent.

Elizabeth A. Higgins  
Director, Office of Environmental Review

Attachment

cc:

Richard A. Miller  
Director of Environmental Policy  
University of Connecticut  
31 LeDoyt Road U-3055  
Storrs, Connecticut 06269-3055

## Summary of Rating Definitions and Follow-up Action

### Environmental Impact of the Action

#### **LO--Lack of Objections**

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

#### **EC--Environmental Concerns**

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

#### **EO--Environmental Objections**

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

#### **EU--Environmentally Unsatisfactory**

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

### Adequacy of the Impact Statement

#### **Category 1--Adequate**

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

#### **Category 2--Insufficient Information**

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

#### **Category 3--Inadequate**

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

## **Attachment: EPA Comments on the DEIS for the North Hillside Road Extension**

### **Wetland Issues**

EPA appreciates the efforts of UConn in conjunction with CTDOT/FHWA to date to work to address comments and questions raised by the federal agencies, including EPA, during the development of the EIS. The project design reflects an emphasis on avoiding inland wetlands and associated buffer areas. The preferred alternative includes 0.56 acres of wetland impact associated with direct and indirect impacts from the roadway extension and the North Campus development area.

### Mitigation

EPA supports the avoidance and preservation approach to mitigation described in the DEIS and will continue to participate in the development and review of the mitigation plans as they progress through the NEPA and the Clean Water Act Section 404 processes. Throughout the process EPA suggested ways to protect vernal pools and adjacent habitat and to prevent barriers to amphibian migration. The proposed plan configures the road and buildings to help reduce vernal pool impacts and includes preservation of undeveloped forested canopy and understory around the vernal pools. The roadway design also incorporates amphibian crossings and an embedded culvert to allow for amphibian passage between wetlands, vernal pools and adjacent habitat.

### **Stormwater**

The DEIS addresses a developed area which is the target of the first impervious cover, stormwater Total Maximum Daily Load (TMDL) analysis in the United States. EPA's Region 1 office approved the Eagleville Brook TMDL in March of 2007. Since then, it has garnered a great deal of attention both within the New England region and around the country, and has become a model for other states' efforts in addressing stormwater in a TMDL.

EPA and CTDEP together have committed a significant portion of Nonpoint Source Program funding for an innovative TMDL implementation plan for the Eagleville Brook TMDL watershed (currently \$200,000 for the first two phases, and likely to be supplemented in the future). This will be the first implementation plan for an impervious cover TMDL in the United States, and will therefore be a model for future plans.

While EPA understands that the TMDL target applies officially to only the Eagleville Brook drainage area, EPA feels that the implementation of the TMDL should influence adjacent watersheds as well. In fact, it would be a missed opportunity if the North Campus project development adjacent to the Eagleville implementation project did not adopt the innovative techniques used in the TMDL project.

The implementation plan for the Eagleville Brook watershed is likely to include significant use of pervious pavement, an innovative best management practice (BMP) that has been extensively studied in New England by the University of New Hampshire's (UNH) Stormwater Center. This BMP can completely eliminate runoff from paved areas and is considered one of the most

effective BMPs available for reducing stormwater runoff from developed areas. It is ideally used in new development, and can be very cost-effective. It is especially effective under winter conditions, and these benefits have been documented by UNH.

EPA would like to understand why the development of a large number of new parking spaces does not include the use of pervious pavement, as appears to be the case, when this BMP is such a valuable tool, is becoming commercially available throughout the region, and is most easily incorporated when developing new paved areas. EPA appreciates the use of the BMPs specified in the DEIS for the project, but also points out that it is most effective to get precipitation into the ground where it falls, therefore eliminating any runoff that might bypass other BMPs. We strongly recommend the use of pervious pavement for the project, and we request a meeting with UConn, CTDOT, CTDEP and FHWA to discuss stormwater management options for the roadway extension and the North Campus development area in advance of the development of the FEIS for the project. Please contact Steven Winnett of EPA's Water Quality Unit at 617-918-1687 to schedule a meeting.

## **Secondary and Cumulative Impacts**

### Parking

The proposed North Hillside Road Extension would enable access to a new North Campus development. The North Campus conceptual development plan on which the DEIS is based calls for a maximum total building area of 1.27 million square feet and 4,475 parking spaces. 65% of the building area is expected to consist of research and technology uses, with the rest devoted to recreational facilities, special academic facilities, and the existing Charter Oaks residential units. It appears that most of the 4,475 parking spaces will be in surface lots, including the existing spaces as Charter Oaks. We can only count 3,075 spaces on Figure 3-4 (Concept Development Plan for Alternative 2B) and in Section 4.12.3.1, however, including the 665 spaces that will be in an underground garage. The FEIS should clarify whether all of the remaining 1,400 parking spaces are at the Charter Oaks residential area. If not, the location of all new parking proposed for the North Campus should be shown in the FEIS to determine whether these spaces can be accommodated without impacts to natural resources.

Assuming that the DEIS is correct that the intent is to provide 4,475 parking spaces on North Campus, we are concerned about this plan for two reasons. First, the proposed spaces would add a sizeable amount of impervious cover and associated stormwater runoff. Much of the 38 acres of impervious cover is devoted to parking. Porous pavement and structured parking can help minimize stormwater runoff, but these approaches do not totally eliminate runoff unless the parking is completely underground. Furthermore, although the plan calls for stormwater treatment, there are some contaminants that are not treated by such techniques, such as salt and other deicing chemicals, which are toxic to aquatic life. The greater the surface parking area, the greater the area that needs to be plowed and treated with deicing chemicals that will flow into streams and groundwater.

The second reason we are concerned about the number of parking places is because abundant parking encourages more vehicle trips, thereby increasing the emission of greenhouse gases.

Serious attention should be given to Transportation Demand Management (TDM) measures that would reduce the vehicle trips that will be induced by development of the North Campus. In a campus setting, many of these TDM measures may already be available, such as on-campus shuttle services and bike facilities. Other measures, such as high-quality bus service connecting the campus with surrounding communities should be given serious consideration. As part of the package of measures to reduce vehicle trips, a reduction in the number of parking spaces should be considered. The DEIS states that the Town of Mansfield usually requires 4 spaces per 1000 square feet of building for these planned uses, and indicates that 3.5 spaces per 1000 square feet was selected for this project to reduce impervious cover. What this does not reflect, however, is that most local minimum parking requirements result in an oversupply of parking. Some of the best research on this subject has been done by researchers at UConn's Connecticut Transportation Institute, and we strongly recommend working with the faculty there to determine a context-appropriate parking ratio that reduces vehicle miles travelled and greenhouse gas emissions, as well as impervious cover. Even a very modest reduction to 3 spaces per 1000 square feet of building would reduce the number of parking spaces by 639, eliminating nearly 5 acres of impervious cover.

#### Roadway Design

We recommend that the FEIS examine a reduced width travel lane (possibly with on-street parking) for the North Hillside Road Extension. A reduced width roadway could reduce travel speeds and increase pedestrian and bicycle safety.

#### Impacts from Off-Campus Development

Finally, although the DEIS addresses one major element of secondary impacts – that is, development of the North Campus enabled by extension of North Hillside Road – it does not address impacts in the surrounding communities of the people who will fill the projected 2,803 or more new jobs. It is reasonable to assume that at least some of the people who will fill those jobs do not now live in the area, and may require new housing and services. The FEIS should include some discussion of the potential environmental impacts of development outside of North Campus that is likely to be induced by this project.

### **Greenhouse Gas Emissions, Green Building Design & Energy Considerations**

We recommend that the FEIS include a quantification and discussion of the existing carbon/greenhouse gas footprint of the project area and estimate how that footprint may change as a result of the construction and operation of the access roadway to the North Campus. The assessment should also quantify greenhouse gas emissions associated with vehicle trips to/from the proposed redevelopment. One source of methods for calculating these greenhouse gas emissions can be found on the website of the Massachusetts Environmental Policy Act.

We also encourage CTDOT/FHWA to include a discussion of measures that can be incorporated in the project to avoid, minimize and mitigate for greenhouse gas emissions. These could include energy efficiency measures, transportation demand management strategies and the use of cleaner fuels. We commend UConn's commitment to promoting "green building" strategies and goals consistent with the Leadership in Energy and Environmental Design (LEED) Green Building Rating System. These standards provide requirements for building designs that

conserve energy, use recycled materials and include BMPs such as green roofs, rain gardens, and cisterns for capturing rain for reuse or delaying its release as storm water runoff. The use of energy efficient “dark skies” compliant lighting fixtures should also be required for the roadway extension and redevelopment.

The FEIS should also describe whether opportunities exist for any clean and renewable energy generation on site that could complement the existing cogeneration plant for campus-wide utilities. These opportunities include meeting the energy needs of the development with solar hot water, solar electric and small wind power generation.

### **Construction Impacts**

Given the public health concerns about diesel exhaust from heavy duty diesel trucks and other heavy duty construction equipment, EPA was pleased to see that the DEIS lists possible anti-idling measures, clean fuels, and construction equipment air pollution control devices to control emissions. We strongly encourage UConn/CTDOT/FHWA to proactively require the use of all of these measures and not to wait, as indicated in the DEIS, to see if the “emissions become a public nuisance.”