



South Carolina Department of Health
and Environmental Control

Bureau of Water
2600 Bull St
Columbia SC 29201

Public Notice # 2008-0081-DIR

Public Notice Date: November 21, 2008

NOTICE OF DEPARTMENT DECISION – STATE CERTIFICATION

The Department, acting on an application for Water Quality Certification pursuant to Section 401 of the Federal Clean Water Act and for certification of consistency with the SC Coastal Zone Management Program in accordance with R. 48-39-10 et. seq. and 15 CFR 93 has reached a proposed decision for the project described below:

South Carolina Department of Transportation
Construct Phase III-Berlin Myers Parkway
Sawmill Branch
Dorchester County
P/N 2008-0081-DIR

After reviewing the project plans, staff of the Ocean and Coastal Resource Management determined that the proposed work is consistent with the Coastal Zone Management Program (48-39-10 et. seq. and 15 CFR 93).

After reviewing the project plans, staff of the Division of Water Quality determined that there is a reasonable assurance that the proposed project will be conducted in a manner consistent with the certification requirements of Section 401 of the Federal Clean Water Act. Accordingly, the Department proposes to certify the project with conditions as follows:

1. The applicant must implement Best Management Practices during construction to minimize erosion and migration of sediments off site, as proposed. These practices may include use of mulches, hay bales, silt fences, or other devices capable of preventing erosion and migration of sediments. Upon completion of construction activities, all disturbed areas, including filled areas, which are not paved must be permanently stabilized with a vegetative cover. This may include sprigging, trees, shrubs, vines or ground cover. In addition, the applicant must construct the project in accordance with NPDES stormwater permitting requirements.
2. Post construction stormwater must be routed through 5 wet detention basins and outfalls consistent with the stormwater quality demonstration submitted by the applicant to address water quality concerns.
3. OCRM must be notified, in writing at the address below, prior to initiation of construction. OCRM will then issue an "authorization to commence work" placard. The placard must be placed in a conspicuous place at the site. No authorized work can commence until the placard is posted and all required permits have been issued and is not valid until all other required federal, state and local permits have been issued for the activity.
4. Office of Ocean and Coastal Resource Management
SC DHEC
1362 McMillan Avenue Suite 400
Charleston, South Carolina 29405

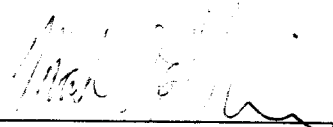
5. Appropriate containment measures must be taken to prevent pollutants such as gasoline, oil, tar, and debris and other pollutants from entering the adjacent waters or wetlands.
6. Only clean earthen material free of all potential sources of pollution must be used as fill.
7. Once the project is initiated, it must be carried to completion in an expeditious manner in order to minimize the period of disturbance to the environment.
8. The applicant must develop a spill prevention and clean up plan for this project. The plan should contain the names of appropriate officials to contact in case of a reportable spill and outline measures to be taken. Clean up materials, such as absorbent pads and booms, must be kept at the project site for small spills. This plan must be submitted to SCDHEC for review and approval prior to initiation of the project.
9. Culverts of sufficient size and number must be placed below the fill material to provide adequate passage of the indigenous aquatic community and at the same elevation as the flood plain.
10. The applicant must provide a vegetative buffer adjacent to the Sawmill Branch Trail (Trail) at all locations where the Berlin Myers Parkway comes within 30 feet of the Trail, as proposed.
11. The applicant must provide compensatory mitigation for wetlands impacts associated with the proposed work through the purchase of 183.12 credits from the Pigeon Pond Mitigation Bank. The applicant must provide documentation of this purchase to SCDHEC prior the work beginning.

The SC Department of Health and Environmental Control reserves the right to impose additional conditions on this Certification to respond to unforeseen, specific problems that might arise and to take any enforcement action necessary to ensure compliance with State standards.

The evaluation of the work was conducted by the Bureau of Water and the Office of Ocean and Coastal Resource Management. A copy of the staff assessment supporting the proposed decision is enclosed. A copy of plans submitted by the applicant is available for review in the office of the Division of Water Quality, Bureau of Water or at the Office of Ocean and Coastal Resource Management. Additional information about the technical aspects of this application is available from Mark Giffin, the project manager, at 803-898-4179.

The final State Certification will be issued unless there is a timely request for review of the Department Decision based on water quality or water use impacts.

The issuance of this Notice of Department Decision represents a final staff decision that may be appealed. The procedures for appeals went into effect July 1, 2006 pursuant to 2006 Act No. 387. Please see the attached page titled "Notice of Appeal Procedure" for details.



Mark Giffin, Project Manager
Water Quality Certification
and Wetlands Section

Notice of Appeal Procedure

The following procedures are in effect beginning July 1, 2006, pursuant to 2006 Act No. 387:

1. This decision of the S.C. Department of Health and Environmental Control (Department) becomes the final agency decision 15 days after notice of the decision has been mailed to the applicant or respondent, unless a written request for final review is filed with the Department by the applicant, permittee, licensee, or affected person.
2. An applicant, permittee, licensee, or affected person who wishes to appeal this decision must file a written request for final review with the Clerk of the Board at the following address or by facsimile at 803-898-3323.

Clerk of the Board
SC DHEC
2600 Bull Street
Columbia, SC 29201

3. The request for final review should include the following:
 - a. the grounds on which the Department's decision is challenged and the specific changes sought in the decision
 - b. a statement of any significant issues or factors the Board should consider in deciding how to handle the matter
 - c. a copy of the Department's decision or action under review
4. In order to be timely, a request for final review must be received by the Clerk of the Board within 15 days after notice of the decision has been mailed to the applicant or respondent. If the 15th day occurs on a weekend or State holiday, the request is due to be received by the Clerk of the Board on the next working day. The request for final review must be received by the Clerk of the Board by 5:00 p.m. on the date it is due.
5. If a timely request for final review is filed with the Clerk of the Board, the Clerk will provide additional information regarding procedures.
6. The Board of Health and Environmental Control has 60 days from the date of receipt of a request for final review to conduct a final review conference. The conference may be conducted by the Board, its designee, or a committee of three members of the Board appointed by the chair.
7. If a final review conference is not conducted within 60 days, the Department decision becomes the final agency decision, and a party may request a contested case hearing before the Administrative Law Court within 30 days after the deadline for the final review conference.

The above information is provided as a courtesy; parties are responsible for complying with all applicable legal requirements.

STAFF ASSESSMENT

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (SCDHEC)
DIVISION OF WATER QUALITY
WATER QUALITY CERTIFICATION AND WETLANDS SECTION**

I. Background Information

Applicant: South Carolina Department of Transportation (SCDOT)

P/N Number: 2008-0081-DIR

P/N Date: January 18, 2008 **Date Received:** January 17, 2008

P/N Close: February 19, 2008

Section of Applicable Federal Law: () Section 10 (x) Section 404 (x) Section 401

Section of Applicable State Law: (x) Coastal Zone Consistency () Construction in Navigable Waters Permit

Brief explanation and purpose of activity:

The proposed work consists of constructing approximately 3 miles of new roadway on new location extending the existing Berlin Myers Parkway. The purpose of the construction is to reduce traffic congestion.

Waterbody Name: Sawmill Branch **Water Classification:** FW

Waterbody Location: At locations of the proposed Phase III – Berlin Myers Parkway between East Carolina Avenue and US 17A in Summerville, in Dorchester County, South Carolina (Latitude 32°59'50" N; Longitude 80°11'48" W)

Waterbody on 2008 303(d) List or TMDL developed?

(x) Yes, Sawmill Branch and Dorchester Creek (stations CSTL-043 and CSTL- 013, respectively) appear on the 2008 303(d) list as being impaired for aquatic life uses due to low levels of Dissolved Oxygen (D.O.). Recreational uses also are impaired in Sawmill Branch and Dorchester Creek due to fecal coliform levels, for which TMDLs have been developed. Dorchester Creek also is impaired for aquatic life use due to ammonia (NH3N) levels. Downstream the Ashley River is impaired for recreational uses due to high levels of fecal coliform bacteria (stations MD-049 and CSTL-102). The Ashley River is also impaired for aquatic life due to high turbidity levels ((MD-049) and low D.O. levels for which TMDL's have been developed (CSTL-102 and MD-049). SCDHEC required that the applicant submit a detailed stormwater management plan and water quality demonstration to provide assurances that stormwater leaving the roadway will not contribute to these impairments. Qualified internal staff reviewed this demonstration, which included design and an assessment of post construction stormwater treatment effectiveness. The applicant proposed 5 wet detention ponds to collect and treat most of the runoff from the proposed Berlin Myers Parkway (parkway). Runoff from the parkway west of Flood Heirs Road will be directed to Basin #1, which will discharge into a wetland east of Flood Heirs Road and eventually back to the project and Basin #2. Most runoff from the Parkway east of Flood Heirs Road will be collected in Basins #2 through #5 and discharged more or less directly into Sawmill Branch. Runoff from several sections of the parkway will not be directed to ponds because of road geometry, wetlands, topography, or other reasons. Most of this runoff will be directed to wetlands or vegetated ditches.

The ponds are sized to store and treat 1 inch of rainfall from the impervious surfaces and 0.5 inches of rainfall over the remainder of the drainage areas. The ponds are designed according to recommended standards and should provide adequate treatment of pollutant removal. The Parkway with the proposed stormwater treatment plan should not contribute to fecal coliform bacteria to Sawmill Branch, Dorchester Creek and the Ashley River. Also, the proposed roadway should not be a significant contributor of oxygen consuming constituents (BOD) or ammonia. In addition, the use of best management practices during construction will prevent erosion and migration of sediments, which could contribute to turbidity impairment in the Ashley River (see Section H. of this assessment).

II. Project Description

A. Description of Work

The project was previously advertised under P/N SAC 2006-1800-DIR; however, the applicant withdrew the project permit application. The proposed work consists of extending the existing Berlin Myers Parkway and will be the third and final phase of the parkway. The project will involve the construction of 3 miles of new roadway on new location. The proposed road will consist of two travel lanes in each direction (12 feet wide outer lane and 12.5 feet wide inner lane), with curb and gutter. The travel lanes will be separated by a 10-foot-wide planted median will be 10 feet wide. In detail, the proposed project requires permanent impacts to 14.65 acres of wetlands by a volume of 127,648 cubic yards of fill and temporary clearing impacts to 0.75 acre for a total of 15.4 acres of wetlands impact. The project purpose, as stated by the applicant, is the completion of the third phase and western portion of the Berlin Myers Parkway, linking Phases 1 and 2 to US 17A on the southwestern side of Summerville. Although intended to principally serve through traffic, an additional role of the project will be to serve local traffic, providing a safer and quicker access to Interstate 26 while improving overall safety on surrounding roads.

B. Fill

1. Is fill required? Yes No If no, proceed to Section II. C.

Amount	127,648 cy	14.65 acres
Total	127,648 cy	14.65 acres
Wetlands	127,648 cy	14.65 acres
Open Waters of U. S.	0	0

2. Is the fill temporary? Yes— there will be some temporary fill. No

C. Excavation

1. Is excavation required? Yes No If no, proceed to Section II. D.

Amount	Cubic yards	acres
Total		
Wetlands		
Open Waters of U. S.		

2. Is dredge spoil site adequately sized for the amount of material?

Yes, see Section VI for specific detail

No

D. Other Impacts: Yes No

Mechanically cleared wetlands – 0.75 acres

Flooding wetlands

E. Project Modification

Was the project modified from the original public notice?

Yes

No

F. Compensatory Mitigation

Is compensation required by DHEC?

Yes

In the previous application, the applicant originally proposed on-site mitigation, which was intended to address and correct adverse effects to the wetland areas associated with the project corridor. However, despite considerable effort, SCDOT was not able to obtain on-site wetlands, as the owners of the 26 wetland tracts identified refused to sell. The mitigation originally proposed in the current application was to purchase 183.12 credits from the Beidler Forest In-Lieu Fee Mitigation Program. The required credits for proposed impacts were determined using the Corps of Engineers (Corps) mitigation Standard Operating Procedure (SOP). However, resource agencies and others were concerned that the mitigation proposed was inappropriate because it does not replace wetland losses in the same watershed (Sawmill Branch/Ashley River) as the wetlands to be impacted by the project (see Section VI). To address this concern, the applicant proposed to purchase 183.12 credits from the Pigeon Pond Mitigation Bank to offset project impacts. This bank is located within the Ashley River watershed and its service area includes the area to be impacted by the project. The site is physically connected to the Wassamassaw Swamp to the south through a natural drainage system. The Wassamassaw Swamp and its tributaries are headwaters of the Ashley River. Therefore, the currently proposed mitigation will offset wetland losses associated with the project provided that the applicant submits documentation of credits purchased from the Pigeon Pond Mitigation Bank prior to the work beginning.

No

N/A

G. Remediation

Is remediation required? Yes No

H. Nonpoint Source Concerns

1. Are water quality impacts from nonpoint sources expected?

Yes Water quality impacts from non-point sources will be minimized and should not contravene the water quality standards or existing and classified uses of Sawmill Branch, Dorchester Creek and the Ashley River, if the applicant adheres to the conditions in Section VIII of this staff assessment during and after the project.

Temporary

No

2. Has the applicant addressed nonpoint source concerns?

Yes The applicant stated that erosion and sediment control measures will be implemented in accordance with Section 107.26 of SCDOT's Standard Specifications. In addition, the implementation of the proposed stormwater management plan will assure that stormwater leaving the project site will not contribute to water quality impairments in Sawmill Branch (see Section I addressing 303(d) status). The following is addressed in the Final Environmental Assessment submitted by the applicant: A vegetative buffer will be maintained between the Parkway and the Sawmill Branch Walking/Bike Trail. Best Management Practices (BMPs) will be incorporated into the design, construction, and operation of this project in order to protect water quality. During construction activities, the possibility for temporary siltation in the canal bed would exist. However, the vegetative buffer, the berm and the walking trail

would all be located between the construction and the canal and should provide protection of water quality in the canal. In addition, the contractor would be required to minimize this impact by employing erosion control measures reflecting policies contained in 23 CFR 650, Subpart B. Also, during construction, potential temporary impacts to adjacent wetlands and streams will be minimized by implementing sediment and erosion control measures to include seeding of slopes, silt fences, sediment basins, or other methods as appropriate. In addition, to address existing water quality impairments, the applicant submitted a detailed stormwater management plan and water quality demonstration (see Section I).

No

III. Environmental Assessment

A. Is the proposed activity water dependent? Yes No

B. Are there feasible alternatives to the proposed activity?

Yes

No

The applicant began an evaluation of practicable and feasible alternatives for the proposed project during the preliminary stages of the project development as required by the National Environmental Policy Act (NEPA). The following information addressing project need and alternatives is contained in the Final Environmental Assessment submitted by the applicant:

Project Purpose and Need

Phase 3 will complete the western portion of the originally proposed Berlin Myers Parkway project, and will link Phases 1 and 2 to US 17A on the southwestern side of Summerville. This linkage will complete the loop south of town, which has been part of the local transportation plan since the early 1970s and is listed as an element of SCDOT's Statewide Transportation Improvement Program (STIP). The five-year transportation program for the period October 1, 2002 to September 30, 2007 lists this project as the 13th priority for CHATS. Regarding Capacity, the Berlin Myers Parkway project was originally developed to be a limited access roadway from Interstate 26 to the southwest side of Summerville and was proposed to relieve traffic congestion on various transportation facilities in the Summerville area, primarily US 17A and Bacon's Bridge Road. Although intended to principally serve through traffic, growth in the region has resulted in additional needs. An additional role of the project will now be to serve local traffic, providing a safer and quicker access to Interstate 26. The need for service to local traffic results from residential growth in Town, the provision of some connectivity of the Berlin Myers Parkway to local roads, and the increasingly congested major transportation facilities in the area.

6x The traffic count trends are supported by population growth in the area. As evidenced by the chart shown in Figure 23, the population trend in the Town of Summerville and Dorchester County has been increasing over the past several decades. Population in Dorchester County has increased a total of approximately 200% since 1970, with the Town of Summerville's population increasing by approximately 625% during that same time period. A corresponding increase in traffic on roadways in the Town and County has accompanied that population increase. Since one of the purposes of the project is to relieve traffic congestion along existing roads, one of the primary factors that must be considered is the volume-capacity (V/C) ratios and Level of Service (LOS) of the roads in the vicinity of the project area. A factor to be considered in analyzing the need for a road project is the capacity of the existing roadway. The concept of "Level of Service" uses qualitative measures that characterize operational conditions within a traffic stream and their perception by motorists and passengers. The descriptions of individual Levels of Service characterize these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. The

Federal Highway Administration (FHWA) and the American Association of State Highway and Transportation Officials (AASHTO) define various Levels of Service as follows:

Level of Service A: Free flow with individual users virtually unaffected by the presence of others in the traffic stream.

Level of Service B: Stable flow with a high degree of freedom to select speed and operating conditions but with some influence from other users.

Level of Service C: Restricted flow which remains stable but with significant interactions with others in the traffic stream. The general level of comfort and convenience declines noticeably at this level.

Level of Service D: High-density flow in which speed and freedom to maneuver are severely restricted and comfort and convenience have declined even though flow remains stable.

Level of Service E: Unstable flow at or near capacity levels with poor levels of comfort and convenience.

Level of Service F: Forced flow in which the amount of traffic approaching a point exceeds the amount that can be served, and queues form, characterized by stop-and-go waves, poor travel times, low comfort and convenience, and increased accident exposure.

The amount of traffic that can be served under the stop-and-go conditions of Level of Service F are generally accepted as being lower than possible at Level of Service E; consequently, Level of Service E is the value which corresponds to the maximum, or capacity, flow rate on the facility. For most design or planning purposes, however, LOS rates B, C, or D are more properly utilized, since they assure a more acceptable Level of Service to facility users. The V/C ratio is the volume to capacity ratio or the ratio of demand flow rate to capacity for a traffic facility. SCDOT has established a correlation between V/C ratio and LOS designations according to a table provided.

If Phase 3 of the Berlin Myers Parkway is not constructed, several of the area's roads are projected to realize substantial increases in the V/C ratio, resulting in longer delays. Construction of the Berlin Myers Parkway (Phase 3) should improve traffic flow on many of these roads with V/C ratios being reduced. Although several roads would still be at a level of service of "F", the predicted V/C ratios would improve with the construction of this project and the delays would be shorter than those that would occur without the project. Construction of the final phase of the Parkway would improve the service on the other major roads in the area, including US 17A, Bacons Bridge Road, and Dorchester Road. Orangeburg Road would experience minimal increases in traffic in some segments, resulting in an LOS designation of E. However, it should be noted that Orangeburg Road is now a major connector between US 17A and Dorchester Road, and would serve as a major connector to the Parkway. An LOS designation of B on this road would be well within the desired design for these segments. A number of studies have been completed to assess the need and function of the final phase of the Berlin Myers Parkway. The Town Awareness Committee, comprised of residents in neighborhoods potentially affected by the proposed alignments of the Parkway, retained Professor David T. Hartgen of the University of North Carolina at Charlotte (Center for Interdisciplinary Transportation Studies). Additionally, the Town of Summerville retained the consulting firm of Day Wilburn Associates, Inc. to prepare the Town's Transportation Plan, which contained a discussion of the Berlin Myers Parkway. Subsequent to those studies, CHATS prepared an analysis of the Berlin Myers Parkway that compared and analyzed these two previous studies and provided their assessment of the need for the project and that analysis is hereby included as a part of this document by reference (1). CHATS notes that "when comparing the two studies, the need and functional capability of the final phase of the Parkway is considerably contrasting." They note that both studies

were based on the CHATS transportation model. They further note that subsequent to both studies, the CHATS transportation model had been refined and their analysis concluded that the proposed alternatives for Phase 3 do meet the need and purpose, which includes reducing the traffic volumes on US 17A and Bacons Bridge Road. More recently, CHATS has prepared a new traffic model to more accurately reflect the changes that have taken place in the area and to provide a more realistic and reliable prediction of traffic. This model, completed in 2005, provides a much clearer picture of the overall traffic patterns in the vicinity of the proposed Berlin Myers Parkway. A copy of correspondence relative to that model from CHATS is included as a part of the EA document by reference (10). All traffic projections presented in this document are based on the refined CHATS model. SCDOT realizes that this project will not relieve all of the congestion in and around the town of Summerville and understands that no one project could provide such relief. As noted above traffic conditions on some roads will still be at a level less than desirable, but this project will improve conditions that can be further improved with other projects. An overall plan has been developed and is being implemented by the Dorchester County Sales Tax Transportation Authority, which includes 22 separate projects, including the Berlin Myers Parkway. All 22 projects are vital parts of the overall roadway improvement plan for Dorchester County.

Regarding safety, construction of Phase 3 of the Berlin Myers Parkway should also contribute to an improvement in the overall safety on surrounding roads. Accident data for the period January 2001 through December 2004 for several major roads in the area are summarized in a table provided. This data indicates that there have been a substantial number of accidents on these roads, and that approximately 85% of these have been the result of rear end or angle collisions, which most often occur during vehicular turning movements. These types of accidents are usually directly proportional to the volume of traffic and traffic congestion. As noted above, if this project is completed, traffic congestion should be improved on many of the surrounding roadways, which should result in fewer rear end and angle collisions. Traffic data used to support the project purpose and need section are found in tables in the Final Environmental Assessment document.

Alternatives

No-Build Alternative

The "no-build" alternative, which consists of defining no improvements, was considered as a baseline for comparison, but because of the anticipated traffic demand resulting from growth in the area and the need to provide the public with safer and improved traffic movements, was not considered acceptable.

Build Alternatives

Build alternatives that were considered included several that would widen existing roadways as well as several alternate routes along new alignments. Each alternative was evaluated based on its ability to meet the stated purpose and need for the project. If the alternative could not satisfactorily meet this purpose and need, it was eliminated from further evaluation.

Alternatives Considered But Eliminated

Two alternatives which involve widening of existing roadway segments (SC Route 642 with SC Route 165 and U.S. Route 17A) have been considered but eliminated from further consideration due to their inability to meet the stated purpose and need for the project as well as the impacts of these alternatives. The first alternative considered was widening SC Route 642 (Dorchester Road) beginning at Fisher Road and continuing to SC Route 165 (Bacons Bridge Road) from two lanes to five lanes, and widening SC Route 165 from SC Route 642 to approximately 1000 feet south of Stallville Road (S-9) from two lanes to five lanes. The remaining portion of Bacons Bridge Road to Trolley Road has been widened under another project. This alternative is referred to as Alternative 4. The second alternative considered was widening U.S. Route 17A from two lanes to five lanes

beginning at Fisher Road and continuing to E. Carolina Avenue and widening E. Carolina Avenue from U.S. Route 17A to the existing Berlin Myers Parkway (SC 165). This alternative is referred to as Alternative 5.

As discussed earlier in this document in the section on "Purpose and Need," the Berlin Myers Parkway project was originally developed to be a limited access roadway from Interstate 26 to the southwest side of Summerville and was proposed to relieve traffic congestion on various transportation facilities in the Summerville area, primarily US 17A and Bacon's Bridge Road. Referring to Table 3 one can see that both Bacon's Bridge Road and US 17A are operating at a Level of Service (LOS) of "F". The CHATS traffic model indicates that if Phase 3 of the Berlin Myers Parkway is not constructed, traffic on both roads would increase, and even with the construction of additional lanes the LOS on segments of both roads would remain at or near a designation of "F". Thus, a primary objective of relieving traffic congestion on these two roads would not be accomplished. Widening of Bacon's Bridge Road would have little impact on the LOS of US 17A, and likewise, widening US 17A would have little impact on the LOS of Bacon's Bridge Road. However, construction of the Berlin Myers Parkway would reduce the overall V/C ratio on both of these roads. Beyond the traffic comparison analysis, additional evaluations were conducted on each of these alternatives. Again, these are summarized in Table 5. In many areas these two alternatives would have greater impact than the three alternatives on new alignment. For example, based on current tax maps, there are a total of 193 parcels of land associated with Alternative 4 and 200 parcels on Alternative 5. This compares to 37, 32, and 30 respectively on Alternatives 1, 2, and 3. Right-of-way acquisition would be a more time consuming effort for Alternatives 4 and 5. Likewise, these two alternatives have a considerably greater number of curb cuts resulting from driveways and adjoining roads. Alternative 4 has 32 curb cuts and Alternative 5 has 51. This compares to 5 curb cuts for each of the new alignment alternatives. The significance of this differential is that the roadway could not be considered as a limited access roadway with so many cuts, again not meeting one of the major criteria for the project. This increased number of curb cuts simply provides additional locations for turning movements, increasing the potential for rear-end accidents. The number of potential relocations associated with Alternatives 4 and 5 is greater than the number associated with the new alignments. Alternative 4 would have a total of 28 possible relocations (15 residential, 8 commercial, and 4 cultural resources). Alternative 5 would have a total of 38 possible relocations (13 residential, 26 commercial, and 1 cultural resource). These potential relocations are shown on Figure 3. This compares to maximum of 7 relocations for the new alignments. Alternatives 4 and 5 would also have a greater impact on cultural resources than the new alignments. Each of the new alignments could possibly result in actual disturbance of cultural resources (as discussed later), and possible visual impact to other cultural resources. Alternative 4 could require the relocation of 4 cultural resources with impact to an additional 1 resource, while Alternative 5 could result in the relocation of 3 cultural resources, with impact on an additional 9 resources; however, each of these has been determined not eligible for the National Register of Historic Places. It should be pointed out that the northernmost portion of Alternative 5 lies within the Summerville Historic District. This district was listed on the National Register of Historic Places in 1976 and any construction activities within this area will likely affect the district. Widening of US 17A through this district would change the overall character of the district and would be considered a negative impact in that right-of-way would have to be acquired from each parcel fronting on US 17A in the district. Another difference between the various alternatives is the overall traffic capacity for the road system in and around the project. For simplicity, the road system in and around the project is defined to include the capacity of US 17A, Bacon's Bridge Road/Dorchester Road, and the three new alignments, Phase 3 of the Berlin Myers Parkway. If Alternative 4 were chosen, resulting in the widening of Bacon's Bridge Road and Dorchester Road, the increased capacity [average daily traffic (ADT)] of the system would be 38,100. Likewise, if Alternative 5 were chosen, resulting in the widening of US 17A, the system capacity would be 36,700. Each of alternatives 1, 2, and 3 involve the construction of a new roadway on new alignment and would increase the overall capacity of the system to 60,600. Therefore, the overall capacity of the system

would be less with either of the two alternatives that widen existing roads. In addition to the impacts above for which numeric values can be assigned, there are other negative aspects of the existing roadway widening alternatives. For example, the widening alternatives would result in many more inconveniences to residences and business during construction. Frequent detours and/or lane closures (resulting in delays to the traveling public) would be necessary. Access to individual properties would be interrupted during construction. Accident potential during construction would be much greater along the widening alignments than along new location. It is true that widening existing alignments result in the requirement to purchase less new right-of-way and would impact less wetlands; however, these positives aspects do not outweigh the many negative impacts described above, nor do they negate the fact that widening alignments do not address the purpose and need for the project. Thus, these alternatives are deemed not viable and have been eliminated from further consideration. This is not to imply that improvements to Bacons Bridge/Dorchester Road and US Highway 17 are not necessary. Rather, it is the conclusion that improvements to these roads would not be a replacement for the Berlin Myers Parkway, Phase 3. In fact, widening of Bacons Bridge Road and Dorchester Road has been included as projects to be completed under the Dorchester County Transportation Sales Tax Program. Public Information Meetings have been held on both projects and preparation of environmental documents and preliminary design is currently underway. Both projects are scheduled for construction scheduled to begin in late 2009 to early 2010.

Build Alternatives Under Consideration

Three corridors were established for the three potential alternatives along new alignment. Alternatives 1, 2 and 3, as shown on Figure 5, would have the same alignment except at the western end of the project near Fisher Road. Each alternative would involve the construction of a 4-lane roadway, mostly on new location. There are several options for the actual roadway cross-section, regardless of the alignment selected. Additionally, there are several options for the connection to US 17A at the southwestern end of the project. The various cross-section options and US 17A intersection options are discussed at the end of this section.

Alternative 1

Alternative 1 would be approximately 3.18 miles long, mostly on new location, beginning at the intersection of U.S. Route 17A and Fisher Road and proceeding east-northeast to an intersection with Secondary Route 22 (Orangeburg Road). It would then proceed east along Greenwave Boulevard (Secondary Route 363) with an intersection with Greenwave Boulevard, north of the Summerville CPW wastewater treatment facility, to an intersection with Luden Road just north of the current intersection of Luden Road (Secondary Route 706) and the Sawmill Branch Canal. It would then proceed northeast along the Sawmill Branch Canal, south of Country Club Estates, before tying to the intersection of SC Route 165 (E. Carolina Avenue) and the terminus of Phase 2 of the Berlin Myers Parkway. This alternative will require partial closure of Greenwave Boulevard and will require a direct connection of the remaining portion of Greenwave Boulevard to the Parkway. Additionally, since Greenwave Boulevard is the major access route for Gregg Middle School, a direct connection of the school entrance to the Parkway will be required. The same situation exists for Somersej Subdivision.

Alternative 2 (Preferred Alignment)

Alternative 2 would be approximately 3.25 miles long, mostly on new location, beginning at the intersection of U.S. Route 17A and Fisher Road and proceeding east to an intersection with Secondary Route 22 (Orangeburg Road). It would then proceed east-northeast, south of the Summerville CPW wastewater treatment facility, to an intersection with Greenwave Boulevard (Secondary Route 363), proceeding northeast to an intersection with Luden Road near the current intersection of Luden Road (Secondary Road 706) and the Sawmill Branch Canal. It would then proceed northeast along the Sawmill Branch Canal, south of Country Club Estates, before tying to the intersection of SC Route 165 (E. Carolina Avenue) and the terminus of Phase 2 of the Berlin Myers Parkway. After a review of all impacts associated with the various alternatives and input received as a

result of the Location Public Hearing held on March 26, 2002, SCDOT selected Alternative 2 as the preferred alignment.

Alternative 3

Alternative 3 is approximately 3.21 miles long, mostly on new location, beginning at the intersection of U.S. Route 17A and Fisher Road and proceeding east (close to the edge of Ancrum Lane) to an intersection with Secondary Route 22 (Orangeburg Road). It would then proceed east-northeast, south of the Summerville CPW wastewater treatment facility, to an intersection with Greenwave Boulevard (Secondary Route 363), proceeding from there northeast to an intersection with Luden Road near the current intersection of Luden Road (Secondary Route 706) and the Sawmill Branch Canal. It would then proceed northeast along the Sawmill Branch Canal, south of Country Club Estates, before tying to the intersection of SC Route 165 (E. Carolina Avenue) and the terminus of Phase 2 of the Berlin Myers Parkway. The intersection of the Berlin Myers Parkway and E. Carolina Avenue for all three of these alternatives will be a single point urban interchange (SPUI), with northeast and southwest traffic along the parkway over E. Carolina Avenue. The SPUI configuration will require widening the existing roadway section along the Parkway east of E. Carolina Avenue for approximately 3,000 linear feet. The new section will be composed of on and off ramps with two lanes each and an elevated four lane section for the through movements. The intersections of the existing portion of the Parkway with Ashley Drive and E. Richland Street will be modified to right in/out intersections.

Roadway Cross-sections Considered

A number of possible cross-section designs were considered during the early planning stages for the proposed Parkway. The first considered was a four-lane divided highway with a grass median. There would be two 12-foot travel lanes in each direction. The roadway could be constructed with 2 foot-paved shoulders or as a curb and gutter section. The grass median width could vary from 36 feet to 48 feet, with an overall right-of-way varying from 100 feet to 200 feet, depending on the width of the median and whether paved shoulders or curb and gutter are selected. A second possible design considered would replace the grass median with a raised median as shown in Figure 8. The raised median could vary in width from 10 feet to 15 feet. As shown, the median is simply a concrete median; however, landscaping in this median is a possibility. Similar to the section with the grass median, this section could also be constructed with outside paved shoulders or curb and gutter. Again, the total width of the required right-of-way would depend upon the several variables discussed previously, but would be from 100 feet to 200 feet. Figure 7. Roadway Cross-section with Grass Median Finally, the cross-section could replace the raised median with a concrete barrier as shown in Figure 9. The basic dimensions and options would be the same as described for the raised median. After consideration of the impacts of the various cross-section options, variation of the alternatives described above has been selected for this project. The design for the major portion of Phase 3 of the Berlin Myers Parkway will consist of two travel lanes in each direction (12 feet wide outer lane and 12 ½ feet wide inner lane), with curb and gutter. The median will be 14 feet wide, consisting of 2 feet curb and gutter on each side and 10 feet wide planted section in the middle. This design was selected to minimize impacts to wetlands and trees by lessening the overall right-of-way width and to provide a visually appealing roadway. By minimizing the width of the median and utilizing curb and gutter, the right-of-way width has been reduced to between 100 and 180 feet. The final cross-section chosen for this project is depicted in Figure 10.

Alternatives for Connecting Parkway to US 17A

Connection of the proposed Parkway to US 17A is also an area where several options were considered. The first of these options would involve realignment of US 17A such that it would intersect with the proposed Berlin Myers Parkway at a new intersection as shown. This would be a signalized intersection and would require northbound traffic to turn left to get onto US 17A. This option would encourage through traffic to utilize the Parkway instead of US 17A.

The second alternative considered would have the Parkway intersect the existing alignment of US 17A as shown in Figure 12. This would require a signalized intersection also. This configuration would be less likely to encourage through traffic to turn onto the Parkway, and may not improve the traffic flow on US 17A as much as the first alternative. Finally, an interchange at the junction of the proposed Parkway and US 17A. was considered. This would require a "flyover ramp" as shown. While this option may provide for the best overall traffic flow situation, it is also the most expensive, requiring additional right-of-way and at least 5 additional relocations. The visual impact of this alternative would be greater than either of the other two alternatives. The alternative selected as the preferred design is the first one described. It provides for the most cost effective design with the least overall impact. It also provides a design that will encourage vehicles to use the Parkway as opposed to US 17A, thereby meeting one of the criteria, which is to reduce the traffic flow on US 17A.

**C. Water Quality Assessment
Numeric Standards Contraventions?**

Yes

Temporary, the proposed work may cause a temporary increase in turbidity levels, but ambient conditions should resume once the work is completed. SCDHEC required the applicant to submit a stormwater management plan and demonstration to provide assurance that stormwater leaving the project site would not contribute to existing aquatic life and recreational use impairments (see Section III. C.). The stormwater demonstration involved the calculation of removal efficiencies for Biological Oxygen Demand (BOD) and fecal coliform bacteria, associated with stormwater management measures. In addition to stormwater management practices, the existing vegetative buffer, berm and walking trail would all be located between the proposed road and Sawmill branch and should provided additional protection of water quality. Therefore, the proposed project should not contribute to low oxygen or fecal coliform levels (Sawmill Branch, Dorchester Creek and the Ashley River) as well as turbidity levels (Ashley River) provided the applicant adheres to the conditions addressing the use of Best Management practices and stormwater management in VIII of this staff assessment. Water quality standards will not be contravened and designated uses of Sawmill Branch will not be changed provided that the proposed stormwater management plan is implemented (see Section I addressing 303 (d) status). Potential adverse impacts to water quality can be minimized through the use of best management practices, and the conditions described in Section VIII of this staff assessment.

No

Will the proposed activity cause alterations of current patterns or water circulation?

Yes

No

Stormwater from the project will be routed through several detention ponds and outfalls as explained in Section I to address water quality concerns.

**D. Benthic Community Losses: Yes () Amount: ___ No (x)
Permanent () Temporary () Cumulative () N/A ()**

The proposed work will not adversely impact the benthic community of Sawmill Branch provided that appropriate best management practices and stormwater management techniques are used (see Section III. C.).

**E. Wetland community losses: Yes (x) Amount: 15.4 acres No ()
Permanent (x) Temporary () Cumulative ()**

Wetlands provide many valuable water quality functions including water purification via pollution and sediment trapping, hydrological buffering, and food chain production. The 14.65 acre jurisdictional area to be permanently impacted by the placement of fill material and clearing consists of remnant

floodplain wetlands. In addition, clearing will impact approximately 0.75 acres of wetland; however, this impact will be temporary. Wetlands impacts will be offset through appropriate compensation (see Section II. F.). In addition, proper stormwater management practices will replace water quality functions of lost wetlands on-site (see Section III. C.). Therefore, permanent wetland impacts will be minimal and should not adversely impact the overall ecosystem or wetland functions of Sawmill Branch provided that conditions in Section VIII. are adhered to.

IV. Public Comments Received

A. S. C. Department of Natural Resources (SCDNR)

Date: February 13, 2008

- Does not object to project provided the applicant adheres to the conditions in Section VIII.**
- Hold in abeyance.**
- Objects to the proposed project, see discussion in Section VI, Conclusions.**
- No objection.**
- Has elected not to conduct an investigation nor provide any comments.**

SCDNR recommended that further efforts be made to reduce fill in wetlands, including the use of 2:1 side slopes throughout the project and the use of additional bridging, particularly in the area of East Carolina Avenue. It was also recommended that the new roadway be constructed immediately adjacent to the existing canal berm and/or walking trail. SCDNR is also of the opinion that the current mitigation proposal (use of the Beidler Forest Mitigation Program) is unacceptable and that recommended that the applicant pursue alternate mitigation strategies that focus on the protection and restoration of wetlands within the Sawmill Branch watershed. Until such time as their concerns and recommendations are addressed, SCDNR asked that the permit not be issued.

B. U. S. Fish and Wildlife Service (USFWS)

Date: February 11, 2008

- Does not object to project provided the applicant adheres to the conditions in Section VIII.**
- Hold in abeyance.**
- Objects to proposed project, see discussion in Section VI, Conclusions.**
- No objection.**
- Has elected not to take a position at this time.**

USFWS expressed concern that the purpose and need of the project is not sufficiently defined to justify proposed impacts and pointed out that the EA for the project indicated that, once completed, the Level of Service on the attendant roads would not improve to satisfactory levels. USFWS also is concerned that avoidance and minimization has not been adequately explored in the permit application and that 2:1 side slopes be used throughout the project and that the applicant should consider lengthening the proposed bridges to the maximum extent possible and enlarge proposed culverts to improve hydrologic flows. The Service recommended that the permit be held in abeyance until the applicant can clearly demonstrate the need for the roadway; that all impacts have been avoided to the maximum extent possible, and that final impacts adequately mitigated.

C. Southern Environmental Law Center (SELC)

Date: February 19, 2008

- Does not object to project provided the applicant adheres to the conditions in Section VIII.**
- Hold in abeyance.**
- Objects to proposed project, see discussion in Section VI, Conclusions.**
- No objection.**
- Has elected not to take a position at this time.**

SELC submitted comments and included copies of previous comment letters (addressing the previous application) and attached 8 exhibits including transportation planning information and TMDLs developed for Dorchester Creek, Sawmill Branch and the Ashley River. SELC raised several issues based on the EA including, but not limited to, need for an EIS, the preferred alternative does not meet the project purpose and need (overall level of service would not be improved), inadequate consideration of alternatives (e.g., improving local road network), inadequate consideration of impacts including wetlands and water quality, secondary and cumulative impacts as well as a flawed mitigation plan.

D. Ashley Scenic River Advisory Council (ASRAC)

Date: February 18, 2008

ASRAC requested that a public hearing be held for this projects due to concerns related to proposed wetlands losses and associated water quality impacts, proposed mitigation outside of the watershed, and the lack of clarity of drawings and maps in the permit application.

April 22, 2008

ASRAC expressed concern that stormwater from the proposed could further impact water quality in Sawmill Branch, Dorchester Creek and the Ashley River since there is no plan for wetlands mitigation in the affected watershed. ASRAC earnestly requests DHEC to require SCDOT to incorporate best management practices, buffers and on-site mitigation to ensure water quality protection as a condition of approval of this permit request. ASRAC suggested 5 best management practices that could be used to treat stormwater from the site and also stated that a vegetative buffer be maintained or constructed to protect the existing pedestrian walkway/bicycle trail. Finally ASRAC urged that mitigation for wetlands disturbance occur on-site, or at least within the upper Ashley River and its watershed, so that there is some potential benefit for this already-impaired State Scenic river and its ecosystem.

E. Public Comments from Individuals

James D. and Roma I. McGraw

February 5, 2008

The McGraws stated that the Joint Public (JPN) notice did not give any details of issues that would be of interest to the citizens of Dorchester County and recommended that a public hearing be held. The only revisions in the current JPN relate to the mitigation plan which involves the purchase of credits fro the Beidler Forest In-Lieu Fee Mitigation Program, whereas the previous JPN proposed on-site mitigation though a combination of wetland restoration, enhancement and preservation. Also the current mitigation plan has removed upland buffers and reduced the number of mitigation credits from 235.55 to 183.12 credits. Based on the latest application, it appears that SCDOT has ignored the problem of nonpoint source runoff pollution along 3 miles of impervious roadway into the Sawmill Branch Canal. Offsite mitigation will do nothing to correct the water quality problem along Sawmill Branch and the Ashley River. They believe that the residents of Summerville and Dorchester County deserve the opportunity to understand exactly how SCDOT intends to maintain water quality to federal standards and the ramifications of this entire program on the environment.

April 23, 2008 (Public Hearing at Dorchester County Council Chambers)

Mr. And Mrs. McGraw made several points regarding their involvement with the proposed project. They

request that SCDHEC deny the SCDOT request (P/N 2008-0081-DIR) for a permit for off-site mitigation without first providing proper roadway design protection of the Sawmill Branch Canal and Ashley River.

Marcy S. Walsh

February 8, 2008

Ms. Walsh requested that a public hearing be held because of concerns and questions regarding disposal of polluting runoff water, flood control, impacts to the walking trail, offsite mitigation and monetary costs.

Tony Melfi

February 19, 2008

Mr. Melfi stated that the current agreement with SCDOT for the purchase of his property does not include the "New Wetland/Stormwater R/W" shown on project plans. Mr. Melfi objects to the R/W shown on his land.

Angela M. Shirey

February 18, 2008

Ms. Shirey expressed concern about a stormwater R/W that will have a negative impact on tract 25.

Lucy Anne Cathcart

February 19, 2008

Ms. Cathcart (to Richard Darden, COE) requested that the Corps recommend approval of the last plan for the extension of the Berlin Myers Parkway. To deny approval would be a hardship to the Town of Summerville, where traffic congestion interferes with the ambience of this historic town and to the merchants there. To change a course of planning that has been in the works for 35 years is an injustice to those who have planned their lives in accordance with the announced infrastructure.

April 17, 2008

Ms. Cathcart stated that she trusts that SCDHEC will find the stormwater collecting mechanisms and water treatment facilities included in the new structural design for the Expressway to be adequate for its certification as being consistent with water quality standards. She supports SCDHEC as it addresses its specific charge to protect water quality from harm. She submitted her comments by letter since she was not able to attend the public hearing on April 23, 2008.

Norman Walsh

May 6, 2008

Mr. Walsh is concerned about the proposed Parkway being adjacent to the Saw Mill Branch Trail without a buffer in some places. Mr. Walsh requested that SCDHEC protect the Trail by requiring a buffer between the trail and the proposed Parkway.

Steve Davis

May 7, 2008

Mr. Davis is a frequent user of the Sawmill Branch bike/walk trail and is concerned that the proposed road could disturb this valuable recreational asset. Mr. Davis requested that SCDHEC support any adjustments need to protect the trail, particularly some type of buffer to preserve the trail.

Elizabeth Kauffman

May 7, 2008

Ms. Kauffman expressed concern regarding the potential loss of the walking/biking trail and associated wetland habitat that supports an abundance of wildlife. She stated that extending the Berlin Myers Parkway does not justify the loss of the wetland area and asked that SCDHEC consider how much the proposed construction alters the town and the quality of life for residents human and animal.

Dave Comer

May 7, 2008

Mr. Cromer stated the utmost consideration needs to be given to maintaining the charm for the Sawmill Braach trail in relation to the extension of the Berlin Myers Parkway. Mr. Cromer asked that as much existing natural tree buffers as possible be maintained and that new landscaping and vegetative buffers be provided where needed to preserve the natural ambience and solitude that the trail now affords.

Beth Kitch

Summerville Bicycle and Pedestrian Coalition.

May 6, 2008

Ms. Kitch expressed concern about the proximity of the proposed roadway to the Sawmill Branch Trail. The plans show the parkway coming within about 30 feet of Sawmill Branch Trail in one location. Ms. Kitch is of the opinion that a vegetative buffer or a sound barrier should be placed in this and possibly more locations. If the proposed construction is approved, Ms. Kitch wants to know if they can count on SCDHEC to make it a safe trail.

Robert Cheatham

April 30, 2008

Mr. Cheatham regrets that he missed the public hearing on April 23, 2008. Mr. Cheatham encouraged SCDHEC not to approve the application for the construction of the Berlin Myers Parkway Phase III in its present form due to the effect this new road will have on the quality of water in Sawmill Branch and the Ashley River. Sawmill Branch currently does not meet water quality standards and the water quality of Sawmill Branch and the Ashley River will get worse if wetlands along its route are filled, particularly for road construction. Mr. Cheatham requests that SCDHEC not permit the building of Berlin Myers Parkway Phase III without mitigating wetlands on-site and also getting Summerville to meet water quality standards.

George McDaniel

Drayton Hall and the National Trust for historic Preservation.

April 23, 2008 (Public Hearing at Dorchester County Council Chambers)

Mr. McDaniel, on behalf of Drayton Hall and the National Trust for Historic Preservation, expressed concern that the proposed project will have unacceptable adverse impacts on aquatic resources of statewide significance and that SCDHEC must deny the 401 permit request. Without on-site mitigation, adverse water quality impacts to the Ashley River will occur. SCDHEC should require SCDOT to incorporate measures to ensure water quality protection as a condition for approval of this permit request. Mr. McDaniel listed 5 best management practices that could be used to treat stormwater from the site and also stated that a vegetative buffer be maintained or constructed to protect the existing pedestrian walkway/bicycle trail since impacts to this walkway will adversely affect recreational users of the Sawmill Branch and the Ashley River.

Public Hearing

A Public Informational Hearing was held on April 23, 2008 at the Dorchester County Council Chambers. A transcript of the hearing was recorded. Eleven people spoke at the hearing and/or submitted written comments at the hearing. Written comments received during the comment period following the hearing are included in the above Public Comments. The following is a summary of issues and concerns raised at the hearing:

Mark Greenslit

Mr. Greenslit expressed concern about the Sawmill Branch Trail and requested buffers or sound barriers between the Trail and the proposed roadway.

Michael Dawson

Mr. Dawson expressed concerns regarding potential water quality impacts related to the project and requested that buffers or sound barriers be placed between the Sawmill Branch Trail and the proposed roadway.

George Neil (ASRAC)

Mr. Neil expressed concern about nonpoint source runoff from the project, 303(d) listed sites potentially impacted by the project, as well as the lack of on-site mitigation and requested that buffers or sound barriers be placed between the Sawmill Branch Trail and the proposed roadway.

Jim McGraw

Mr. McGraw expressed concerns regarding nonpoint source runoff from the project and the lack of on-site mitigation. He is opposed to offsite mitigation and requested that buffers or berms be placed between the Sawmill Branch Trail and the proposed roadway to address sound pollution. He does not think that the project will relieve traffic congestion.

Aaron Brown

Mr. Brown supports the project, does not think that it will adversely impact the environment, and thinks the project will relieve traffic congestion.

Hamilton Davis

Mr. Davis stated that the benefits of the project are questionable, and is concerned about water quality impacts of the project and the lack of on-site mitigation. He also is of the opinion that less damaging alternatives are available and feels that the project should be denied.

Sue Wehman (Drayton Hall).

Ms. Wehman expressed concern about potential water quality impacts of the proposed project and the lack of on-site mitigation. Although she stated that the project is needed, she mentioned that there may be alternatives to the proposed route. She is particularly concerned about adverse impacts to unique habitats (Ashley River).

Mike Murphy (Councilman)

Mr. Murphy stated that stormwater detention ponds should address nonpoint source concerns (e.g., fecal coliform) and that nickel and copper have not been detected in Sawmill Branch/Ashley River since 2000. Mr. Murphy recommended that the project be approved.

Robby Robbins

Mr. Robbins stated that he was a member of the Dorchester County Transportation Authority. He has not seen any reports suggesting that the project would affect water quality. He pointed out that the proposed mitigation has been changed to address public concerns regarding the watershed. Mr. Robbins feels that the proposed project represents good transportation planning, that it will benefit the community and is long overdue. He requested that DHEC do everything within its power to make sure this project goes forward.

Robert Pratt

Mr. Pratt expressed support for the project and feels that it is necessary for economic development in the area.

Coastal Conservation League (CCL)

CCL submitted written comments questioning the benefits of the proposed project and stated that SCDHEC should deny Section 401 certification until the proper steps have been taken to mitigate water quality impacts on Sawmill Branch and the Ashley River and until feasible alternatives have been

considered.

J. D. Allston

Mr. Allston stated that there is no water quality issue related to the proposed project and recommended that the project be approved.

V. Consistency with the Coastal Zone Management Program, R. 48-39-10 et seq.

Did the staff of the Office of Ocean and Coastal Resource Management (OCRM) find the project consistent with the S.C. Coastal Zone Management Program? Yes No

Date: October 29, 2008

Per revisions

Per conditions included in Section VIII.

If no, provide Sections of Coastal Zone Management Program cited.

VI. Conclusion on Water Quality Impacts and Classified Uses

When evaluating the proposed work, SCDHEC followed procedures for implementing State 401 Water Quality Certification regulations pursuant to Section 401 of the Clean Water Act, 33 U.S.C. Section 1341, and the requirements of Regulation 61-101, Water Quality Certification, and requirements of the S.C. Coastal Zone Management Program.

Previous sections of this staff assessment have provided a description and evaluation of specific project impacts to jurisdictional waters of the State, and provided recommendations and modifications, when necessary, to ensure that the proposed work will not contravene water quality standards or change classified uses of Creek. The above assessment also ensures that the proper sequencing of avoidance, minimization, and appropriate mitigation for impacts not feasibly avoided, has been demonstrated. The following analysis will address additional measures intended to avoid adverse impacts to water quality and other resources in the project area. The following analysis may also address other concerns raised by the SCDHEC, resource agencies or other commenting parties:

SELCO, USFWS and others stated that information in the EA indicated that the Level of Service on the attendant roads would not improve to satisfactory levels and, therefore, the project does not meet the purpose and need. The applicant responded by stating that the purpose and need for this project have been clearly addressed beginning on page 1 of the EA. The EA demonstrates that there is a need for an improved transportation network in the Summerville area, but this project was not intended to be the total solution to all traffic problems in the area. The proposed project is a necessary part of the overall needed improvements. The EA acknowledges that traffic conditions on many roads will still be at a level less than desirable, but this project will improve conditions to the network that can be further improved with future projects. Both the Charleston Area Transportation Study (CHATS) and the Dorchester County Sales Tax Transportation Authority have included this project as a necessary part of the overall transportation needs for the Summerville Area. The proposed project is included in 22 projects identified as vital for the overall transportation improvements for the area. The traffic models show that these projects are supportive of each other. This specific project will improve the levels of service for surrounding roads by providing an alternate route for motorists to use to arrive at their destinations, thereby reducing the volumes of traffic on existing roads. Future projects proposed will likewise improve the level of service on the roads being improved as well as surrounding roads, by increasing the capacity of these roads through additional travel lanes or by adding turning lanes. Intersection improvements on several projects will also result in improved levels of service. SELCO referenced a 1998 Transportation Plan prepared by Day Wilburn Associates suggesting that the primary

need of the Summerville road network in the vicinity of the Berlin Myers Parkway is not a single north-south connector for use by through traffic, but a generally improved local transportation network. The applicant agrees that there is the need for an improved transportation network in the area, but this project was never intended to be the total solution to all traffic problems in the area. A more recent traffic study report entitled Town of Summerville Comprehensive Traffic Plan, interim Needs Assessment Report (Carter=Burgess, 2006) pointed out the importance of the proposed extension of the Berlin Myers Parkway: "The extension of the Berlin Myers Parkway to Boone Hill road (US 17A) from Carolina Avenue will provide a great benefit to the Town by relieving congestion on Boone Hill road and Carolina Avenue. The new roadway, which is projected to carry 19,000 to 23,000 daily trips under the 2030 CHATS (Summerville CTP) Build model, will redirect through traffic off of Boone Hill road and improve the LOS along the roadway from Old Orangeburg road to Carolina Avenue. This improvement will also alleviate the need to access Boone Hill Road via Carolina Avenue. In turn, this will improve conditions at the "five-points' intersection at Carolina Avenue. Which had the highest number of accidents over the past 3 years. Construction of the Berlin Myers extension will also serve the increasing need for northeast and southwest through trips and shift these trips away from Main Street (US 17A) and downtown Summerville". In the opinion of the Federal Highway Administration (FHWA), the preferred alternative does meet the project purpose and need as evidenced by their approval of the Final Environmental Assessment (FEA) and issuance of a Finding Of No Significant Impact (FONSI) for the project.

SELC stated that the routes considered are so similar that they cannot be considered alternatives. However, the applicant indicated that several alternatives were considered in the overall evaluation process, including the widening of US 17A, the Bacons Bridge and Dorchester roads. The widening alternatives were evaluated, and in consultation with State and Federal Agencies at interagency meetings, it was concluded that these alternative could be eliminated from further consideration due to their inability to meet the purpose and need for the project. With regards to consideration of more localized measures to remedy congestion, the applicant pointed out that the construction of Phase 3 of the Berlin Myers Parkway is not intended to solve all of the traffic problems within Summerville, but is part of the overall plan to improve the transportation network in the Summerville area, as explained in the previous paragraph. Localized measures include widening and other improvements to US Route 78, Dorchester Road, US Route 178, US Route 15, Central Avenue (Road S-18-13) Gahagen Road (Road S-18-339), Orangeburg Road (Road S-18-22), Old Fort Drive (S-18-662), Intersection improvements at the Robert Bosch Plant, SC Route 453, Future Drive construction (American LaFrance to Wescott), Old Fort Road, Patriots Boulevard, Bacons Bridge Road (SC Route 165), Lincoln Boulevard and Dorchester Road (SC 642 at indigo Fields Subdivision). A more complete description of project alternatives is found in Section III. B.

SELC and others stated that key impacts of the project were ignored including water quality and wetlands. In addition, a citizen representing Drayton Hall expressed concern regarding the projects potential impact on unique habitats in the Ashley River. The applicant addressed water quality issues through a stormwater management plan and water quality demonstration submitted to the Department to provide assurances that the project will not contribute to downstream impaired monitoring sites in Sawmill Branch, Dorchester Creek and the Ashley River (see Section I). Therefore, the project will not adversely impact water quality or unique habitats downstream of the project including the Ashley River in the vicinity of Drayton Hall. Stormwater leaving the site will be treated through a series of wet detention ponds and vegetative filters, which will replace water quality functions of on-site wetlands impacted by the project. Wetlands impacts were minimized to the extent practicable and offset through compensatory mitigation (see Section II F.).

SELC and SCDNR expressed concern regarding significant indirect and cumulative impacts. The applicant responded by stating that cumulative and secondary impacts were addressed in detail beginning on page 58 of the FEA. Transportation projects have the potential to alter existing and future land use trends, depending on the type of improvement and the condition of the existing transportation system. Factors other than transportation facilities that are considered in development decision include cost and availability of developable land, availability of jobs and housing availability of sewer and water facilities and zoning regulations. The majority of land adjacent to the preferred alignment is not suitable for development. The

land along Sawmill Branch Canal lies within the 100-year floodplain and development of this property would be costly. Much of this land has already been delineated as wetlands and the Corps of Engineers has concurred with this delineation, making development more difficult. It is possible that land southwest of Orangeburg Road could be developed along the Parkway, although the Parkway will be a limited access road in this area, which will inhibit commercial development. It is possible that development could occur in areas that this project will provide easier access to, such as areas along US 17A southwest of the Town of Summerville (Town). Growth and development within the Town and Dorchester County is occurring at a rapid pace. The population of the Town and the County increased by 625% and 200%, respectively between 1970 and 2000, and this growth is expected to continue, regardless of whether or not this project is completed. This project will simply provide for an improvement to the overall transportation system to accommodate this growth.

SCDNR and USFWS stated that further efforts are needed to minimize impacts. The applicant responded by pointing out that efforts were made to minimize impacts to wetlands by utilizing 2:1 slopes throughout the project with the exception of the segment adjacent to the 10-foot multipurpose path (from US 17A to Greenwave Boulevard), and only on the side of the path. Because of the fact that 2:1 slopes would not be recoverable for bicyclists, a decision had to be made as to whether to increase the slope to 3:1 or install a guardrail along the path. This segment of the project traverses only a few wetland areas. If the slope is required to be increased to 2:1 in this area, the shoulder behind the sidewalk would have to be widened by 3.5 feet to allow for the installation of the guard rail. The net effect of that change would only preserve approximately 88 square feet of wetlands (0.002 acres). It was determined that this small reduction in impact did not justify the installation of the guard rail. Concerning comments about additional bridging in the vicinity of East Carolina Avenue and/or placing the parkway closer to Sawmill Branch, the applicant stated that this was considered during the design of the project. The wetland in question was at one time part of a larger wetland system, but it has been fragmented and impacted by the construction of Carolina Avenue, adjacent residential development, and Sawmill Branch Canal. In addition, the hydrology of this wetland has been impacted by the Sawmill Branch Canal and to a lesser extent by the drainage ditch near the western edge of the wetland area. It appears that the primary benefit of this fragmented wetland area is wildlife habitat associated with a mature canopy system. The construction of the roadway improvement corridor will necessitate removal of the mature over story vegetation associated with the foot print of the corridor regardless of the method, either filling or bridging, for crossing this area. Although one could argue that there are other wildlife values associated with this area and other habitat types, it does not appear that those values or habitats are unique from other habitats in the area. The cost of the additional bridging in this area was in excess of \$8,000,000., which the applicant felt was an unwise use of public funds and was not justified based on the approximately 1.9 acres of wetlands that would be affected and the fact that the primary function of this area will be lost regardless of whether it is filled or bridged. SCDNR suggested that the Parkway be constructed immediately adjacent to the existing canal berm and/or walking trail to minimize disturbance to the corridor and avoid habitat fragmentation. Based on the results of studies conducted by the applicant, the location chosen for the Parkway will cause the least amount of impacts when taking into consideration all aspects such as the impacts to the walking trail (a 4(f) property), the floodplain, impacts to Sawmill Branch and noise impacts to residents, wetlands, safety, etc. The applicant also made considerable efforts generally to minimize impacts to the wetlands through the design of the project by:

- Selecting an alignment that minimizes impacts to wetlands to the greatest degree practicable
- Minimizing the width of the median for the project. The original design considered was a 48-foot-wide grass median. The final design uses a 10 to 15-foot wide raised median.
- Designing the project with curb and gutter to eliminate wide shoulders, thereby reducing the overall footprint of the project and the amount of wetlands that would be impacted. The overall footprint width for the typical cross section has been reduced from approximately 165 feet to approximately 110 feet, a 33% reduction.
- Utilizing the steepest slopes practicable
- Use of BMP's during construction to avoid adverse impacts to wetlands.

SELC, USFWS, SCDNR and citizens expressed concern regarding the proposed compensatory mitigation

plan and the lack of on-site mitigation. The mitigation proposed in the previous application consisted of on-site mitigation, which would have addressed some water quality concerns. However, SCDOT was not able to obtain on-site wetlands. The mitigation originally proposed in the current application was to purchase 183.12 credits from the Beidler Forest In-Lieu Fee Mitigation Program. The concern with this plan was that the mitigation proposed was inappropriate because it does not replace wetland losses in the same watershed (Sawmill Branch/Ashley River) as the wetlands to be impacted by the project. To address this concern, the applicant proposes to compensate for project impacts through the purchase of 183.12 credits from the Pigeon Pond Mitigation Bank (see Section II.F.).

Citizens expressed concern regarding impacts (e.g., noise) to the Sawmill Branch Trail (trail) and requested that a buffer or barrier be placed between the trail and the proposed roadway where the roadway will come into close proximity to the trail. To address this concern, the applicant will install vegetative buffers at all locations where the Parkway comes within 30 feet of the Trail.

One commenter asked that the project include a small bridge crossing in front of the parkway to Greenwave Boulevard. The Town of Summerville officials indicated that they have applied for an enhancement grant to construct a small bridge across Sawmill Branch to connect to the trail on the south side of the canal. However, this would not connect directly to Greenwave Boulevard. Direct connection to Greenwave Boulevard from the trail would require a pedestrian bridge across the parkway, which the applicant said is not feasible. This bridge would not meet the project purpose and would have no water quality benefits.

During roadway construction fuel, oil, tar, and other paving materials may also result in wetland impacts through contamination of stormwater runoff or accidental spills. Appropriate containment measures will prevent pollutants such as gasoline, oil, tar, and debris and other pollutants from entering the adjacent waters or wetlands. The applicant should develop a spill prevention and clean up plan for this project. The plan should contain the names of appropriate officials to contact in case of a reportable spill and outline measures to be taken. Clean up materials, such as absorbent pads and booms, should be kept at the project site for small spills.

Any pollutants present in fill material could be released if the material erodes during storm events and enters adjacent water or wetlands. The use of only clean fill material, free of pollutants, will prevent water quality degradation from contamination from such pollutants. The applicant states that fill material meeting AASHTO Specifications M-57-80 would be obtained from high ground.

The water quality impacts of the proposed project will be temporary provided the applicant adheres to all of the conditions in Section VIII of this staff assessment. SCDHEC has reasonable assurance that the water quality standards of Regulation 61-68 will not be contravened as a result of the proposed work. The proposed activity will result in no significant degradation to the aquatic ecosystem or remove existing and classified uses of the Sawmill Branch and is in compliance with the above regulations provided the applicant adheres to the conditions in Section VIII. The above assessment also ensures that the proper sequencing of avoidance, minimization, and appropriate compensation for unavoidable impacts has been demonstrated. Information about the technical aspects of this application is available from Mark Giffin, the project manager, by calling 803-898-4179 or by e-mailing giffinma@dhec.sc.gov.

SCDHEC reserves the right to impose additional conditions on this Certification/Permit to respond to unforeseen, specific problems that might arise and to take any enforcement action necessary to ensure compliance with State water quality standards.

VII. Staff Recommendation

Issue 401 Water Quality Certification with conditions and find consistent with the Coastal Zone Management Program.

VIII. Conditions to be Placed on Water Quality Certification and Coastal Zone Consistency Determination When Issued

1. The applicant must implement Best Management Practices during construction to minimize erosion and migration of sediments off site, as proposed. These practices may include use of mulches, hay bales, silt fences, or other devices capable of preventing erosion and migration of sediments. Upon completion of construction activities, all disturbed areas, including filled areas, which are not paved must be permanently stabilized with a vegetative cover. This may include sprigging, trees, shrubs, vines or ground cover. In addition, the applicant must construct the project in accordance with NPDES stormwater permitting requirements.
2. Post construction stormwater must be routed through 5 wet detention basins and outfalls consistent with the stormwater quality demonstration submitted by the applicant to address water quality concerns.
3. OCRM must be notified, in writing at the address below, prior to initiation of construction. OCRM will then issue an "authorization to commence work" placard. The placard must be placed in a conspicuous place at the site. No authorized work can commence until the placard is posted and all required permits have been issued and is not valid until all other required federal, state and local permits have been issued for the activity.

Office of Ocean and Coastal Resource Management
SC DHEC
1362 McMillan Avenue
Suite 400
Charleston, South Carolina 29405
4. Appropriate containment measures must be taken to prevent pollutants such as gasoline, oil, tar, and debris and other pollutants from entering the adjacent waters or wetlands.
5. Only clean earthen material, free of all potential sources of pollution, may be used as fill.
6. Once the project is initiated, it must be carried to completion in an expeditious manner in order to minimize the period of disturbance to the environment.
7. The applicant must develop a spill prevention and clean up plan for this project. The plan should contain the names of appropriate officials to contact in case of a reportable spill and outline measures to be taken. Clean up materials, such as absorbent pads and booms, must be kept at the project site for small spills. This plan must be submitted to SCDHEC for review and approval prior to initiation of the project.
8. Culverts of sufficient size and number must be placed below the fill material to provide adequate passage of the indigenous aquatic community and at the same elevation as the flood plain.

9. The applicant must provide a vegetative buffer adjacent to the Sawmill Branch Trail (Trail) at all locations where the Berlin Myers Parkway comes within 30 feet of the Trail, as proposed.

10. The applicant must provide compensatory mitigation for wetlands impacts associated with the proposed work through the purchase of 183.12 credits from the Pigeon Pond Mitigation Bank. The applicant must provide documentation of this purchase to SCDHEC prior the work beginning.

IX. References

South Carolina Department of Health and Environmental Control. Regulation 61-68, Water Classifications and Standards. Code of Laws of South Carolina, 1976, as amended. 22pp.

South Carolina Department of Health and Environmental Control. Regulation 61-69, Classified Waters. Code of Laws of South Carolina, 1976, as amended. 36pp.

South Carolina Department of Health and Environmental Control. Regulation 61-101, Water Quality Certification. Code of Laws of South Carolina, 1976, as amended. 8pp.

South Carolina Department of Health and Environmental Control. 2008 Integrated List Part 1.

Prepared by:



Date: 11-18-08

Reviewed &
Approved by:



Date: 11/20/08