STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL DIVISION
SUITE 900 - JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-0334

M E M O R A N D U M

DATE: March 23, 2009

FROM:
Tom Love
Transportation Manager I
Tennessee Department of Transportation
Environmental Division

TO:
Mr. Bernard Lindstrom
District Engineer
Nashville District
U.S. Army Corps of Engineers

District Commander
Eighth Coast Guard District

Mr. Charles Nicholson
Environmental Manager
Environmental Policy and Planning
Tennessee Valley Authority

Mr. Benjamin West
U.S. Environmental Protection Agency
NEPA Program Office

Mr. Robbie Sykes
Cookeville Field Office
U.S. Fish and Wildlife Service

Mr. Robert Todd
NEPA Contact
Tennessee Wildlife Resources Agency

TDEC.TESA@state.tn.us
Attn: Dan Eagar
Tennessee Department of Environment and Conservation

Ms. Whitney Sullivan
RPO Coordinator
Southwest Tennessee RPO

COPY:
Mr. Patrick McIntyre
State Historic Preservation Officer
Tennessee Historical Commission

SUBJECT: Tennessee Environmental Streamlining Agreement – Concurrence Point 1
State Route 128 Improvements from State Route 57 to State Route 226 (Airport Road)
Environmental Assessment, Hardin County, Tennessee.

In accordance with the spirit and intent of the Tennessee Environmental Streamlining Agreement for the Environmental and Regulatory Coordination of Transportation Projects (TESA), the Tennessee Department of Transportation (TDOT) is providing you information that describes the preliminary Purpose and Need Statement and a description of the Proposed Study Area for the Environmental Assessment being prepared for the proposed State Route 128 Improvements from State Route 57 to State Route 226 (Airport Road) in Hardin County, Tennessee. This information is considered the Concurrence Point 1 package. We did not include the project Coordination Plan with this package because your office should have received the latest version with the Initial Coordination package sent February 25, 2009.

Please review the enclosed information and provide any comments you may have. If you concur with the information provided, please sign the Concurrence Point 1 signature form included at the end of the attached document and return it to the appropriate address shown on the form. You may also send your signed form to the e-mail address included on the form. If you do not concur with this information please provide us with your reasoning for nonconcurrence in a timely manner so we can address those comments as soon as possible.

If you have any questions concerning the information provided, please feel free to contact TDOT. Please respond within the agreed upon 45-day review period. The primary point of contact for this project is Mr. Tom Love, Transportation Manager 1, (615) 741-5364, E-mail at Tom.Love@tn.gov.

Sincerely:

Tom Love
Transportation Manager 1

PURPOSE AND NEED (CONCURRENCE POINT 1)

PROPOSED STATE ROUTE 128 IMPROVEMENTS FROM STATE ROUTE 57 TO STATE ROUTE 226 (AIRPORT ROAD) IN HARDIN COUNTY, TENNESSEE

ENVIRONMENTAL ASSESSMENT

(PROJECT #: 36010-0221-14; PIN: 101885.00)

Project Description and Status

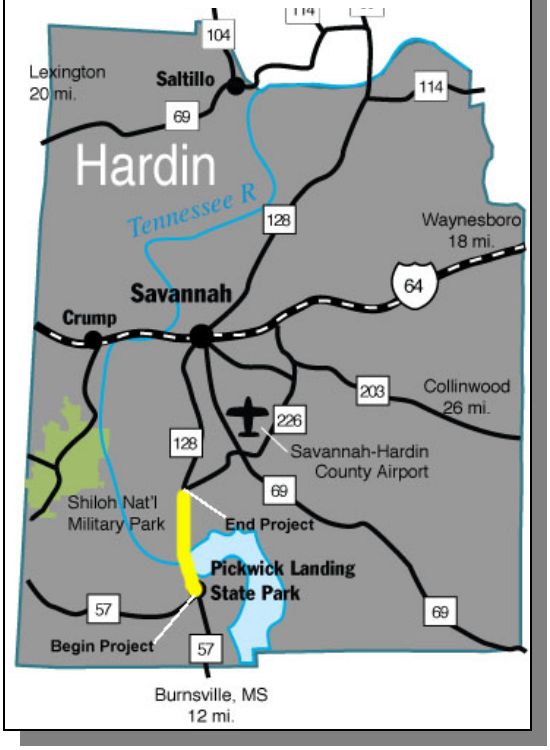
The Tennessee Department of Transportation (TDOT) in conjunction with the Federal Highway Administration (FHWA), in cooperation with the U.S. Army Corps of Engineers (USACE), U.S. Coast Guard (USCG), and the Tennessee Valley Authority (TVA), are preparing an Environmental Assessment (EA) for the proposed reconstruction of State Route (SR)-128 from SR-57 to SR-226 (Airport Road) located in the region of Savannah, Hardin County, Tennessee (see Figure 1).

This project is being considered to provide four traffic lanes, two in each direction, throughout the approximately 6.54-mile project area. The proposed SR-128 improvements would meet current arterial design standards. The following improvements are proposed along two sections of SR-128:

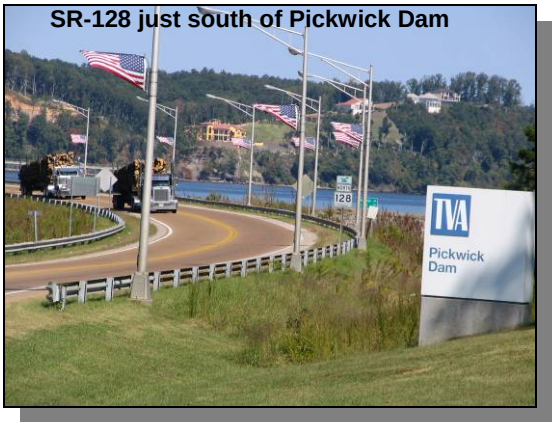
- Realign SR-128, between SR-57 and Pyburns Drive, to the west of its current location creating a new crossing of the Tennessee River; and
- Improvements to the section of SR-128 between Pyburns Drive and SR-226 (Airport Road) would run along the existing route.

This project is the second part of an overall improvement for the 12.27 mile long SR-128 corridor that begins just south of the Pickwick Dam and ends at SR-15 (US-64) in Savannah, Tennessee. In November 2003 a Finding of No Significant Impact (FONSI) statement was approved for improvements to SR-128 from SR-226 northward to SR-15 (US-64) in Savannah. The improvement of SR-128 for that section is scheduled for letting in 2010.

SR-128 Vicinity Map (courtesy of SWTDD)



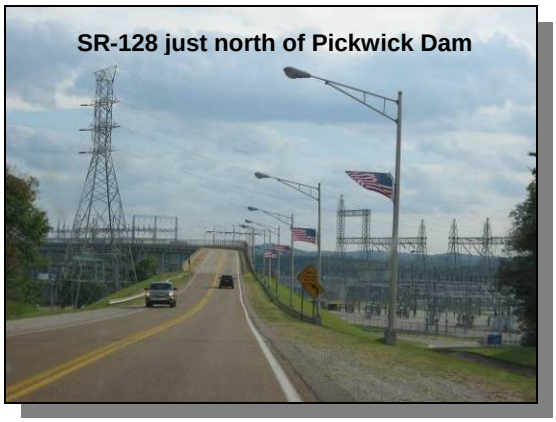
SR-128 just south of Pickwick Dam



An Advance Planning Report (APR) for SR-128, from State Route 57 to US-64 (SR-15) in Savannah was prepared and submitted on June 6, 2001. The report was inconclusive on establishing a proposed location for the Tennessee River crossing (either above or below Pickwick Dam). On June 26, 2002, representatives from the TVA, FHWA, USCG, USACE, and TDOT met to determine the best location for a new river crossing. It was determined that construction of a new bridge below Pickwick Dam would provide the best option.

A Transportation Planning Report (TPR), which was approved in February 2008, involved a more detailed look at the option of constructing a new SR-128 bridge below Pickwick Dam as well as other potential options. The objectives of the TPR were to define the preliminary purpose and need for the SR-128 improvement project and provide guidance for the implementation of options to meet the purpose and need. The document also provided a preliminary look at traffic data, project costs, and other data to aid in the decision-making process.

Tennessee River below Pickwick Dam



SR-128 just north of Pickwick Dam

Trucks at the nearby PCA Facility

TRANSPORTATION PLANNING REPORT

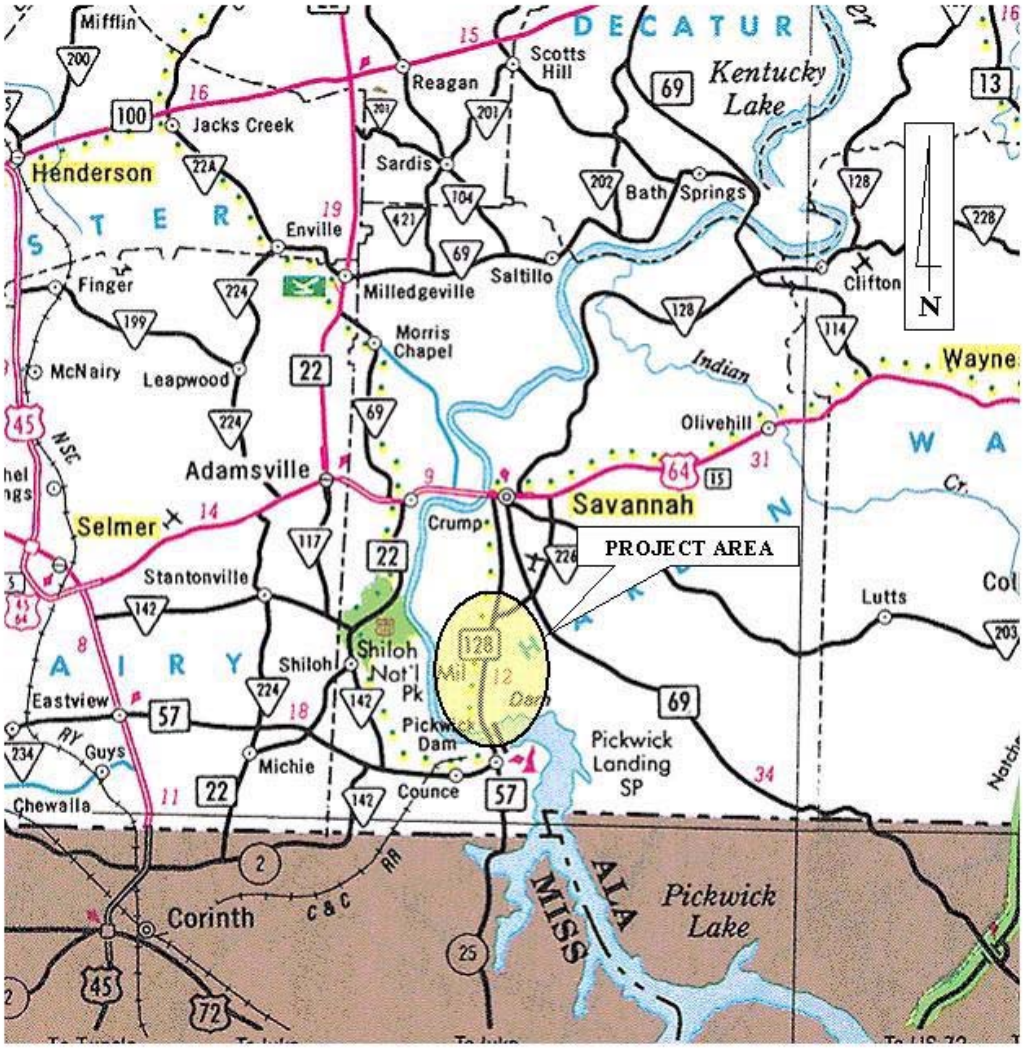
STATE ROUTE 128
FROM STATE ROUTE 57 TO STATE ROUTE 226 (Airport Road)
PICKWICK DAM, HARDIN COUNTY
PIN# 101885.00

PREPARED BY
TENNESSEE DEPARTMENT OF TRANSPORTATION
PROJECT PLANNING DIVISION

Approved by:	Signature	DATE
CHIEF OF ENVIRONMENT AND PLANNING		2/28/08
TRANSPORTATION DIRECTOR PROJECT PLANNING DIVISION		2-28-08
TRANSPORTATION MANAGER 2 PROJECT PLANNING DIVISION		2/24/08

This document is covered by 23 USC § 409 and its production pursuant to fulfilling public planning requirements does not waive the provisions of § 409.

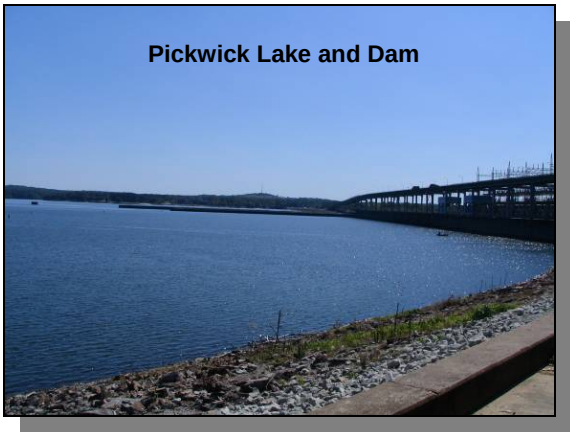
Figure 1. Vicinity Map for Proposed State Route 128 Improvements from State Route 57 to State Route 226 (Airport Road) in Hardin County, Tennessee.



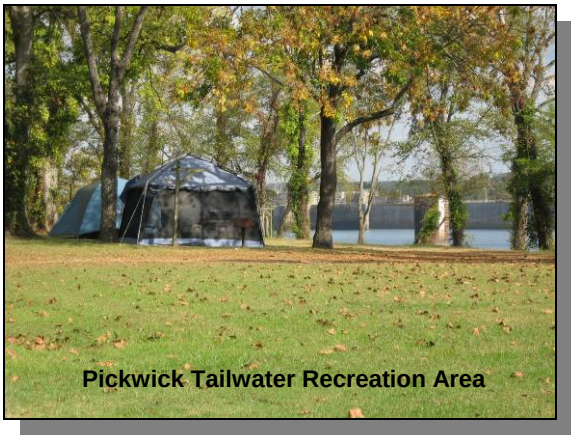
Area Vicinity Map
State Route 128
From State Route 57 to State Route 226
Hardin County, Tennessee

Project Study Area and Study Methods

The study area for this project is located in southern Hardin County in south central Tennessee. Figure 2 shows the project study area used in the early planning stages for this project. The study area lies within the Upper Coastal Plain physiographic province of the southeastern U.S. with rolling hills to relatively flat topography dissected by creeks and small streams.


Pickwick Lake and Dam

In general, the alternatives studied in the EA will be developed and conducted in accordance with established procedures as documented in TDOT"s latest edition of the Tennessee Environmental Procedures Manual (TEPM); with TDOT Environmental Division's scopes of work for performing specific types of studies, such as ecology; historic, architecture, and archaeology; hazardous materials; air quality; and noise. The TEPM complies with all other Federal and State regulations and requirements. The TEPM contains technical guidance as well as background information on federal and state environmental regulation, FHWA guidance and policies, interagency agreements, and TDOT policies. The TEPM provides guidance for the preparation of environmental analysis and documentation for federally-funded and state-funded transportation projects. Projects that are funded in whole or in part with federal funds or have major federal actions must follow the requirements of NEPA, as well as related federal and state environmental regulations. The TEPM helps ensure that TDOT adheres to the requirements set forth in those regulations.

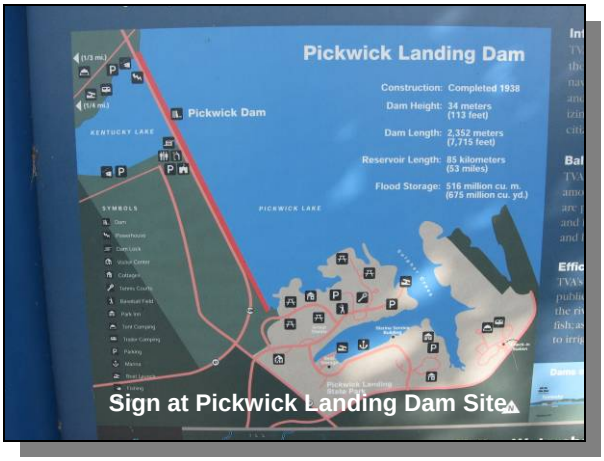

Pickwick Tailwater Recreation Area

More details regarding the proposed layout of the project will be determined during the alternatives development process. The primary study area for most direct impacts anticipated for the project would include a 500-foot corridor (250 feet on either side of the centerline of the proposed alignments). For certain resources, a larger area surrounding the proposed alignments will be studied. For instance, impacts to social and economic environments will likely be studied at the county level.

Packaging Corporation of America Facilities

The size of the study area for the indirect and cumulative impacts analyses will also extend beyond 500-feet of the immediate footprint of the project. The size of the study area for indirect and cumulative impacts will vary by resource category depending on the resources identified in the project vicinity that may potentially be impacted.

After past, present, or reasonably foreseeable projects that have affected, are affecting, or could potentially affect the same resources as the SR-128 Improvements project have been identified, the size of the study area for cumulative impacts analyses will be determined. Typically projects or actions that have potential for cumulative impacts are located in the same general vicinity as the proposed project. However, depending on the resource being evaluated, there can be projects or actions located at larger distances from the proposed project that can contribute to cumulative impacts.

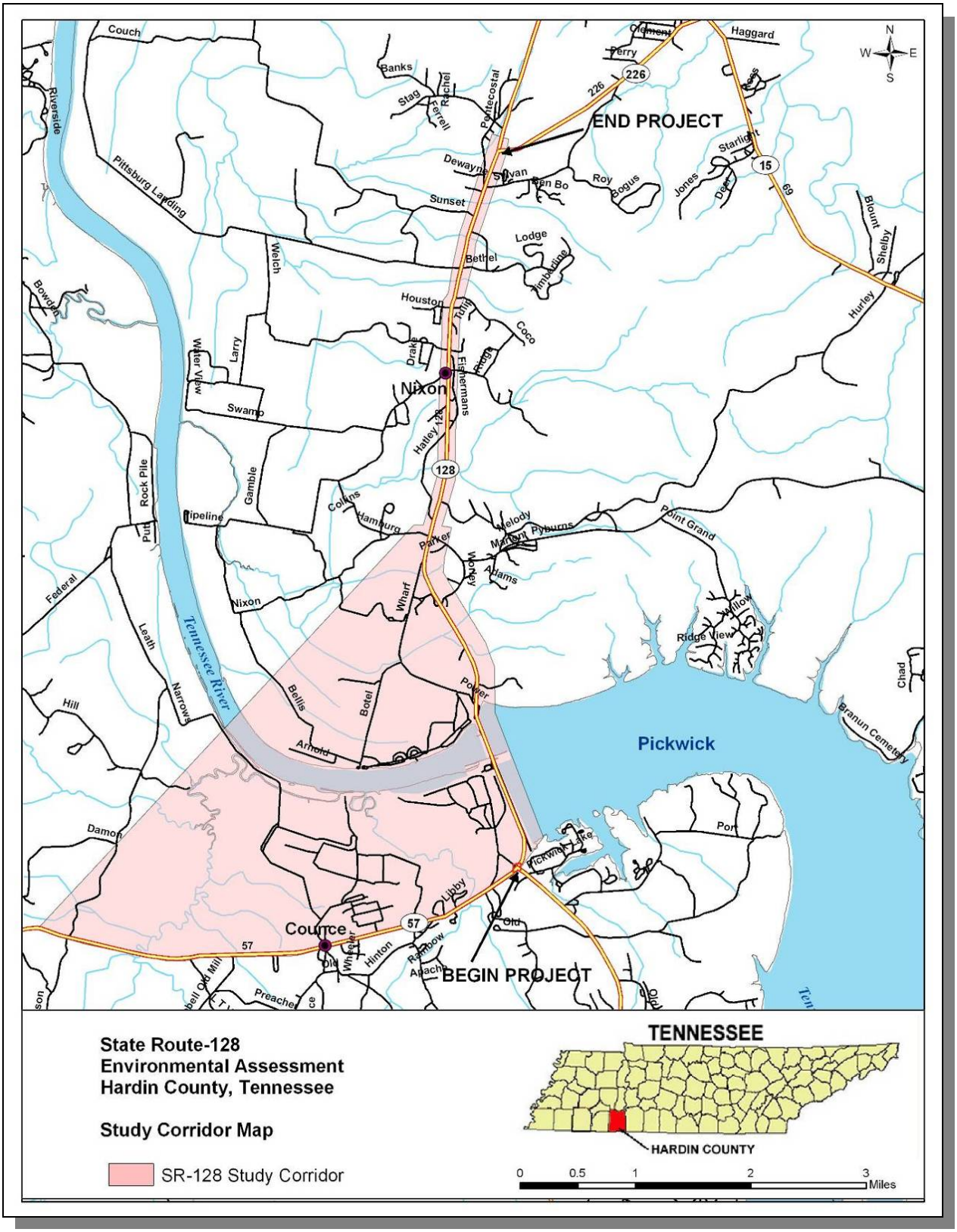


Sign at Pickwick Landing Dam Site


Existing SR-128 through Rural Area

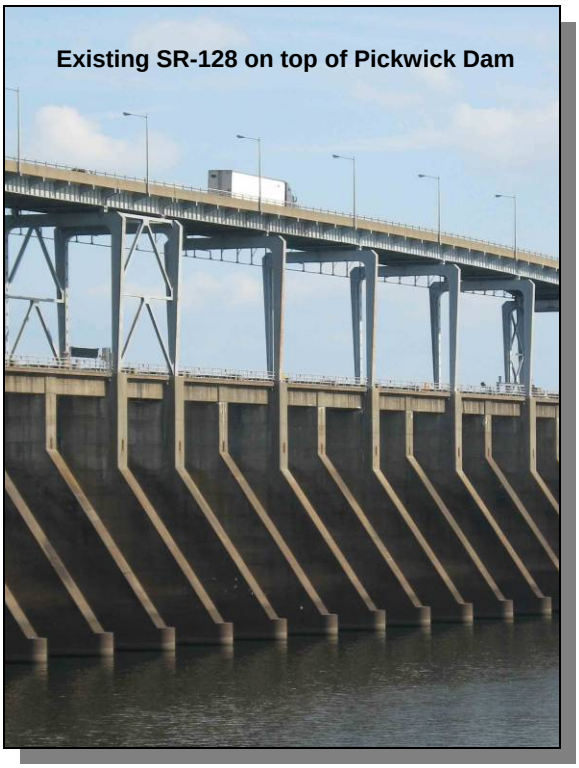
Aerial view of the Tennessee River Shoreline below Pickwick Dam (Photo courtesy of Microsoft Virtual Earth)

Figure 2. Study Area Map for Proposed State Route 128 Improvements from State Route 57 to State Route 226 (Airport Road) in Hardin County, Tennessee.



Project Purpose and Need

The primary objective of the proposed project is to provide an improved arterial highway connection between the City of Savannah and southwest Hardin County, Tennessee. State Route 128 is used by the local community, commercial business, tourism, and through traffic. Trucks account for approximately 10 percent of the traffic volumes on SR-128 in the study area.



Existing SR-128 on top of Pickwick Dam

The primary need on SR-128 in Hardin County is for improved local and regional mobility in the future. Several specific needs are encompassed in this broad goal:

- Promote the potential for economic growth in the City of Savannah and Hardin County, Tennessee by providing improvement to the transportation system.
- Provide an improved north/south route to serve demand for regional accessibility to the national highway system (US 64) and protect that provision in the future.
- Increase the capacity on existing SR-128 in order to improve safety and mobility.
- Widening needed to handle increased traffic demand spurred by commercial and residential development.
- Provide a higher Level of Service (LOS) for motorist comfort levels.
- Provide a secure dam site for improved safety and maintenance.

System Linkage

SR-128 provides an important link in the local and regional transportation system by connecting the Pickwick Lake area and SR-57 to Savannah and SR-15 (US-64). This project will also connect to a third State Route, SR-226. This highway provides an important component in the local, regional, and state highway systems.

Existing Intersection of SR-128 and SR-57

Transportation Demand

It is anticipated that transportation demand will continue to increase in the region, which will require highways that have the capacity to handle those increased demands. There continues to be residential development spreading into the Pickwick Lake area as well as areas along the Tennessee River. TDOT will continue to coordinate with local officials and planners to determine if any other substantial land use changes are planned or anticipated in the SR-128 vicinity that could affect the transportation demand for the facility. More detailed traffic information is provided below.

Trucks at the PCA Facilities.

State Route 128 is used by the local community, commercial business, tourism to and from Pickwick Lake/Tennessee River, and through traffic. Trucks account for approximately 10 percent of the traffic volumes on SR-128 in the study area. Much of the truck traffic along the route is due to logging trucks traveling to and from the Packaging Corporation of America (PCA) containerboard mill located in Counce, Tennessee, just west of the existing southern termini of SR-128 along SR-57. This containerboard mill produces PCA's highest volume of containerboard products, producing about 998 million tons annually. Therefore, this facility is one of the primary traffic generators in the study area, especially for trucks.

Employee Parking Lot at the PCA Facilities.

New Homes located North of Pickwick Lake (Photo courtesy of Microsoft Virtual Earth)

Existing and Future Conditions

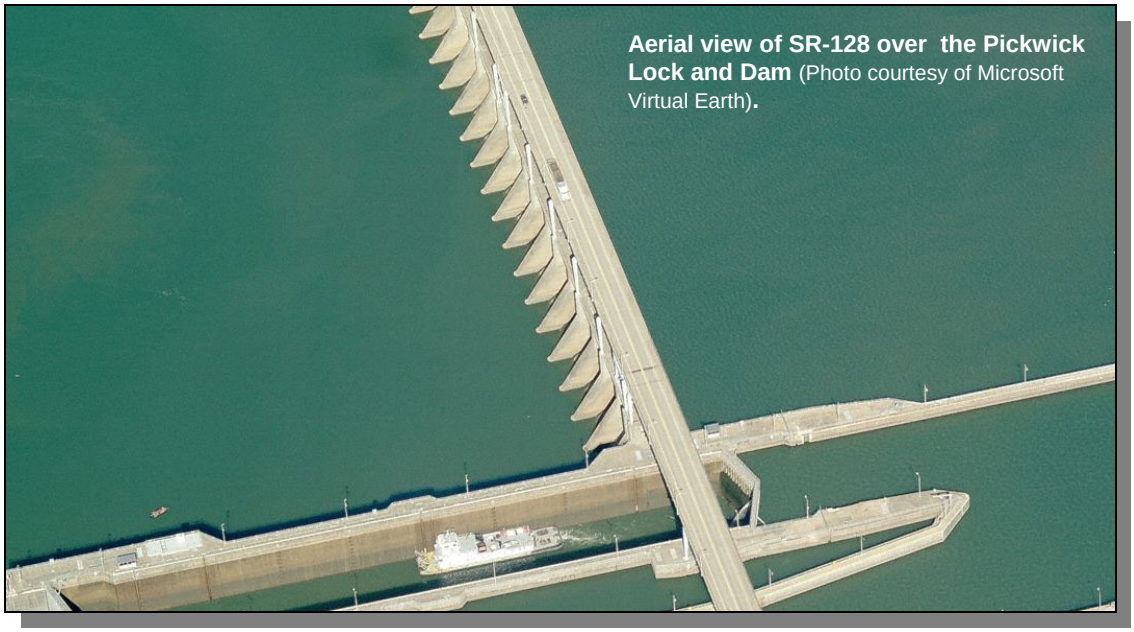
State Route 128 in Hardin County is functionally classified as a Rural Minor Arterial on the state highway system. The existing route is two lanes that are a minimum of 11 feet and a maximum of 12 feet with minimum 2-foot and maximum 10-foot outside shoulders and 100 feet of right-of-way. Existing SR-128 crosses the Tennessee River over Pickwick Dam. The bridge at Pickwick Dam is approximately 0.69 miles long and consists of two 12-foot lanes, 2-foot shoulders, and 5-foot sidewalks on either side. It has been suggested by TVA that providing a new crossing of the Tennessee River would provide for improved safety of the Pickwick Dam.

Existing SR-128 on top of Pickwick Dam.

Traffic Operations

SR-128 will continue to have increased traffic volumes resulting in declining level of service (LOS) and reduced safety without improvements. The projected base year (2011) annual average daily traffic (AADT) along this portion of the route is 7,060. The projected design year (2031) AADT traffic ranges from a low of 8,200 to a high of 10,260.

Existing SR-128 near SR-226 (Airport Road).



Aerial view of SR-128 over the Pickwick Lock and Dam (Photo courtesy of Microsoft Virtual Earth)**.**

Traffic Analyses

The character of operating conditions can be quantified by an LOS analysis. The proficiency of roads is described by their LOS. The LOS criteria reflect the ability of roads to accommodate motor vehicle traffic and subsequent physical and psychological comfort levels of drivers. The LOS analysis incorporates several factors including traffic volumes, number of lanes, terrain, percent of no passing zones, directional split, heavy vehicles, and shoulder widths.

LOS is a qualitative measure that describes the character of traffic conditions related to speed and travel time, freedom to maneuver, traffic interruptions, etc. There are six levels ranging from "A" to "F" with "F" being the worst. Each level represents a range of operating conditions. Figure 3 contains a graphical representation of LOS.

The improvements proposed for SR-128 would allow traffic flow to operate at a projected LOS "A". The "no-build" option for the base year 2011 would be a projected LOS "C" and would allow operating conditions to deteriorate to a projected LOS "E" by the design year 2031.

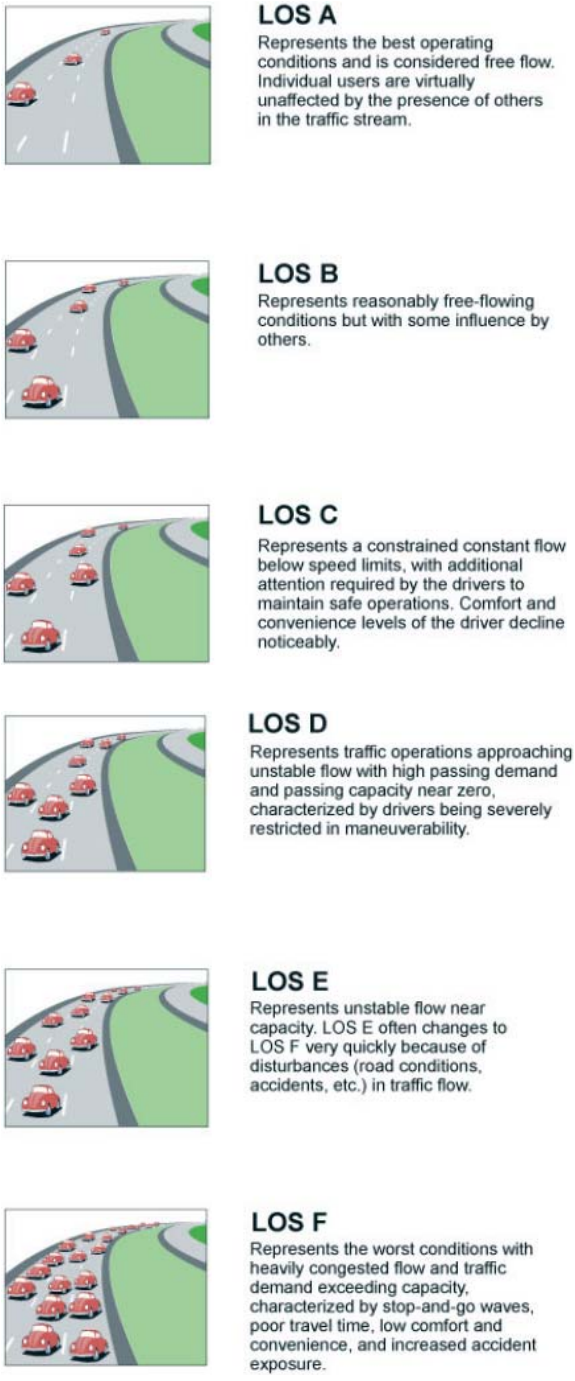


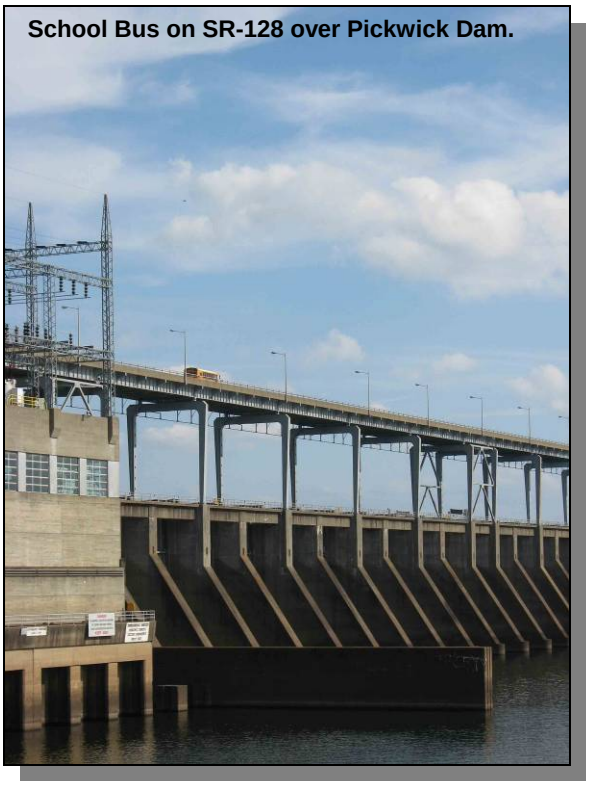
Figure 3. Graphical Depiction of the Levels of Service (LOS) used to describe Roadway Capacity.

Safety

A crash analysis of this portion of SR-128 indicates a crash rate of 0.89 crashes per million vehicle miles, which is lower than the statewide average crash rate of 1.70 crashes per million vehicle miles. The safety of SR-128 will be improved by providing a facility that meets current design standards while providing improved LOS. Additional lanes would be added and full shoulders would be provided. Full shoulders will provide a safer area for disabled vehicles. The proposed improvements will provide improved safety for all motorists.

Existing Intersection of SR-128 and SR-226.

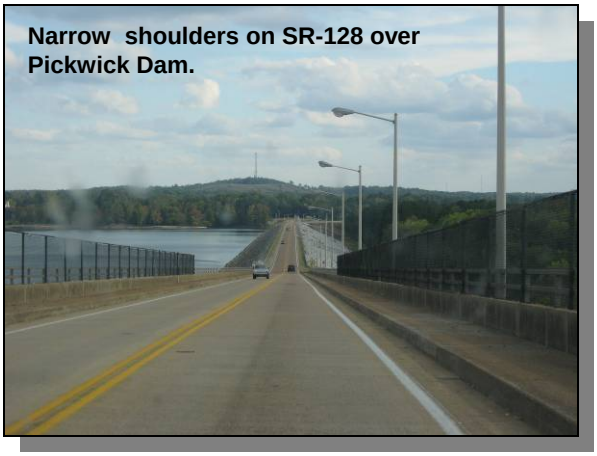
Other safety issues involve safety for Pickwick Dam. Currently, the existing SR-128 is located on top of the dam resulting in potential safety issues for the dam. Construction of a new Tennessee River crossing located downstream of the existing Pickwick Dam would provide improved safety of the dam facilities.



School Bus on SR-128 over Pickwick Dam.

Roadway Deficiencies

The existing SR-128 does not meet current design standards for sight distances or shoulders. Limitations on sight distance at side street intersections and driveways pose potential safety hazards. Existing paved shoulders are only two feet wide along much of the route. Current design standards require an 8-foot wide paved shoulder for an arterial highway with an ADT above 2,000. Current traffic flow operates at an acceptable LOS C, but this is expected to decline below the design threshold to LOS E by the design year 2031.



Narrow shoulders on SR-128 over Pickwick Dam.

Narrow Shoulders on SR-128

Horizontal Deficiency on SR-128

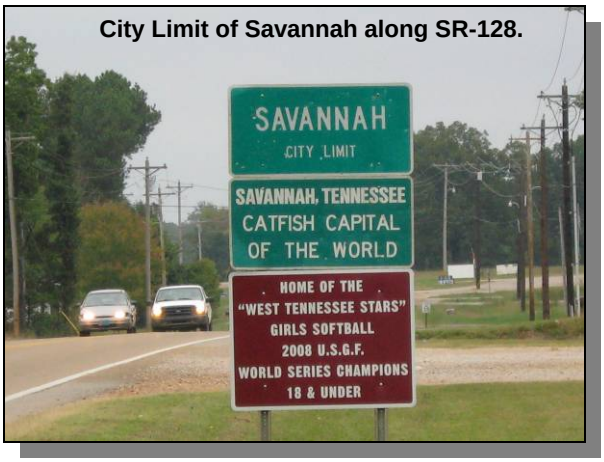
Blind Access Point on SR-128.

Social and Economic Conditions

According to a 2006 Census estimate, Savannah has a population of 7,284 and is the county seat of Hardin County. In 2006, the annual average unemployment rate for Savannah was 6.2%, which is higher than the statewide average of 5.2% for Tennessee. Agricultural products that come from this area of West Tennessee include corn, cotton, soybeans, and small grains.

Savannah and the surrounding area is also home to companies such as PCA, Clayton Homes Inc., and American Food Service Company.

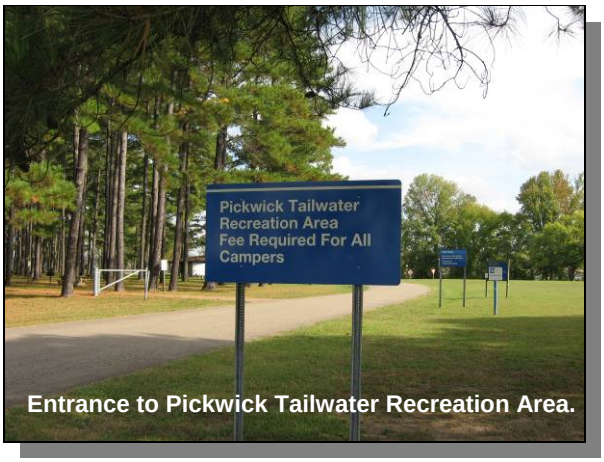
The area now known as Pickwick Landing State Park, which lies at the southern end of the project area, once served as homes for TVA construction crews and their families. The Tennessee State Park system acquired the property from the TVA in the 1970's. Today the park includes cabins, camp sites, a conference center, golf course, lodging, a restaurant, and picnic areas. In 2005, the park had over 1.3 million visitors. The Pickwick Tailwater Recreation Area located below the Pickwick Dam provides boat access, fishing access, and camping areas. This area is also frequented by visitors.



City Limit of Savannah along SR-128.


PCA Facilities located in Counce, Tennessee.

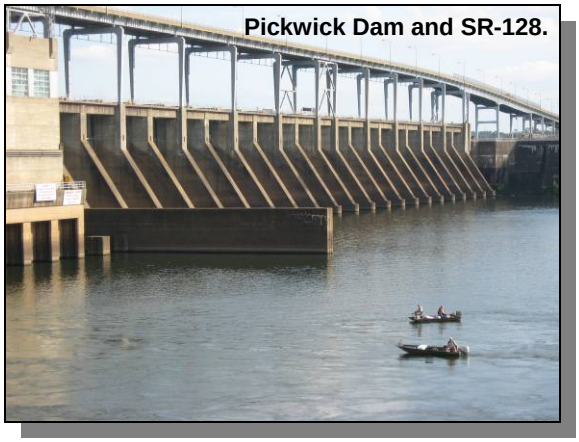
Entrance to Pickwick Landing State Park.



Entrance to Pickwick Tailwater Recreation Area.

Land Use

Land use along the project corridor is primarily rural residential with some commercial and industrial uses, including the PCA containerboard mill located in Counce, Tennessee near the southern terminus of existing SR-128. The southern portion of the project area also contains the Tennessee River, TVA Pickwick Dam and associated facilities and operations property, and recreational areas primarily used for camping.


Pickwick Dam and SR-128.

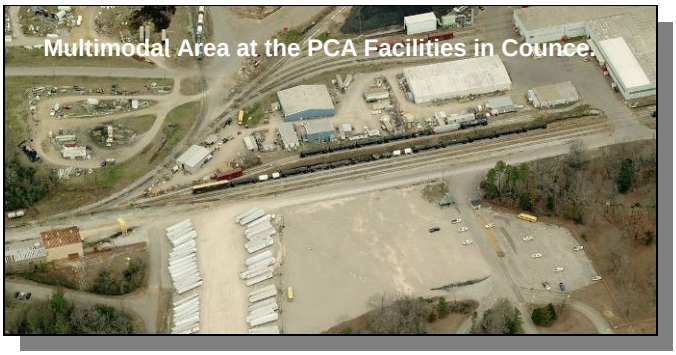
The implementation of this project will provide better access to current land uses and will be capable of supporting land use changes that result in additional residential, commercial, or industrial development in the area. This improved access could provide, to some degree, an improved growth potential for numerous types of land use activities within the project impact zone.


Botel located along the Tennessee River.

This project has been, and will continue to be coordinated with state, regional, county, and city planning agencies. Past correspondence indicated that there were no conflicts with existing or planned programs in the area. TDOT will continue to work with local officials to ensure the proposed facility is consistent with future local comprehensive land use and transportation planning activities for this area.

Modal Relationships

TDOT will study the potential impact this project may have, either beneficial or adverse, on other modes of transportation in the project vicinity. Due to improved traffic capacity, including large trucks, the SR-128 improvements would be expected to complement any other modes of transportation in the area by providing a better connection between the various modes such as airports, rail, and/or ports. The PCA facilities already utilize rail and truck transportation as part of their operations.


Multimodal Area at the PCA Facilities in Counce.

Development of Logical Termini

As defined by FHWA, logical termini are rational end points for a transportation improvement, and rational end points for a review of the environmental impacts. Some guidelines used for selecting a project's logical termini are:

- Begin/end project at points of major traffic generation, often intersecting highways. An example would be widening a two-lane roadway between two four-lane sections.
- The termini selected should encompass an entire project. Dividing the project up into small individual projects is called "segmentation" and is not allowable under NEPA. The project can be constructed in segments, but the project studies should encompass the entire project, so that the effects of the project can be fully identified.
- Geographic boundaries are generally not suitable as logical termini. For example, ending a project at a county line is not logical when the substandard roadway continues beyond the county line to an adjacent town or city.

The logical termini must ensure the following:

- Environmental issues can be treated on a sufficiently broad scope to ensure that the project will function properly without requiring additional improvements elsewhere; and
- The project will not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

The current project being studied in the EA includes the entire section of SR-128 between SR-57 to the south and SR-226 to the north. Therefore, this project is considered to have logical termini including a beginning and ending at existing State routes. Although the project is being studied as one project for NEPA purposes, it is possible that the improvements could be constructed in phases.

Southern Termini of the Project at SR-57.

Northern Termini of the Project at SR-226

Demonstrating Independent Utility

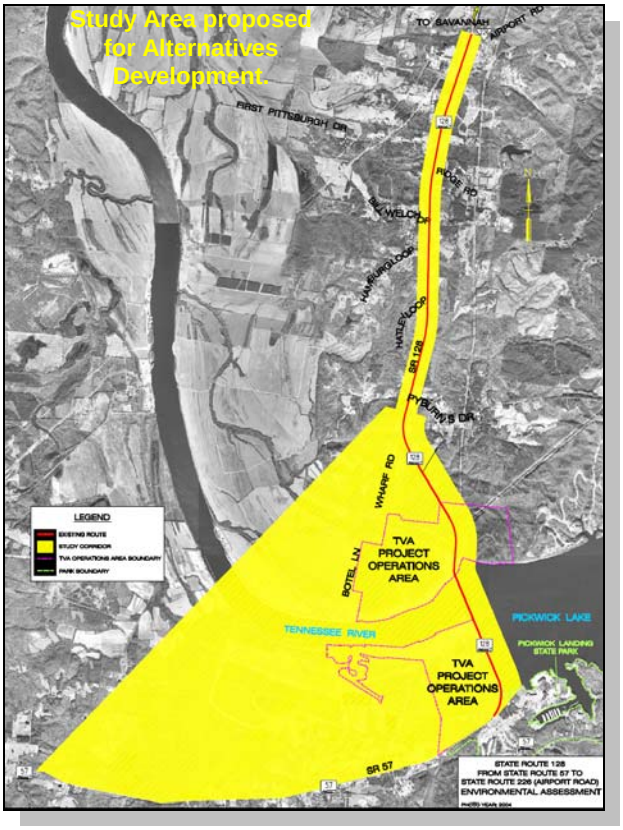
A project must be able to function on its own, a term known as "independent utility." A project with independent utility means that it is usable and is a reasonable expenditure of funding even if no other transportation improvements are made in the area. The project must meet a need without requiring the construction of adjoining projects. In addition, projects that have independent utility should be planned so as not to restrict the consideration of alternatives in adjoining segments.

Southern Terminus of SR-128 at SR-57.

The SR-128 project meets all of the conditions stated above and is considered to have independent utility. This project would provide a continuation of the SR-128 improvements that are planned north of SR-226 (Airport Road) to SR-15 (US-64).

Evaluation Criteria for Identification of Reasonable Alternatives

Once the purpose and need for this project as described throughout this document has been agreed upon, the next step in the planning process will be to identify alternatives that will potentially meet the stated purpose and need. The identification, consideration, and analysis of alternatives are key to the NEPA process and a primary goal of objective decision-making. Consideration of alternatives leads to a solution that satisfies the transportation needs and protects environmental and community resources. If an alternative does not meet the project purpose or need, then the alternative is not considered reasonable. Many other factors exist that could render an alternative unreasonable, including cost and environmental impacts.



A full range of reasonable alternatives will be considered during the development of the SR-128 Improvements EA. The goal of the alternatives development process is to identify potential alternative alignments for the project that are constructible, environmentally sound, and cost effective. A geographic information system (GIS) database is being developed for this project and it will be populated with known environmental constraints data and various other data that is available. The GIS layers will then be used to help

identify alignments that either avoid or minimize the potential impacts to known constraints or sensitive areas to the extent possible. The preliminary alignments developed during the constraints analysis stage will continue to be refined during the alternatives development process.

All potential alternatives identified using GIS, public input, agency input, or other methods will be evaluated to determine if they are reasonable alternatives. Objective evaluation criteria will be developed cooperatively with input from various agencies and the public to help identify and screen potential reasonable alternatives for the project. Table 1 lists the main evaluation criteria and rationale proposed to be utilized to determine if the various alternatives developed for this project are reasonable. These criteria will be revised based on the outcome of the Concurrence Point 1 process and based on any other agency or public input received during the alternatives development process.

Tennessee River Uses shown on a Sign at Pickwick Dam

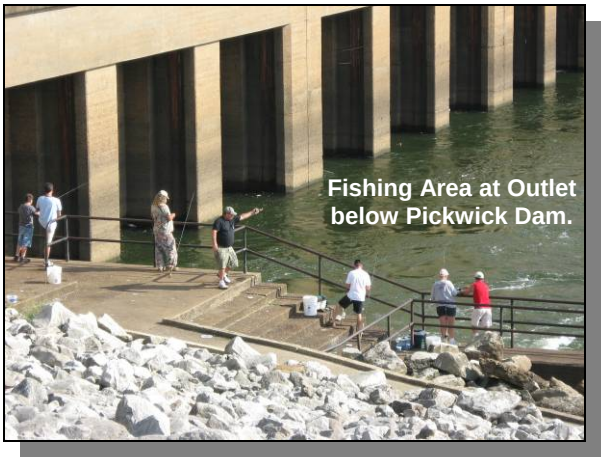


Table 1. Evaluation Criteria to be Utilized in Identifying Reasonable Alternatives to be considered in the SR-128 Improvement EA.

Criteria ID	Evaluation criteria:	Method/Measurement used to determine reasonableness of alternative:
1*	The alternative must meet the stated Purpose and Need for the project. In particular the alternative should provide an improved Highway connection between Savannah and southwest Hardin County that has more traffic capacity, is more efficient, and safer than the existing route.	Design year LOS on SR-128 should be better than would occur under No-Build conditions and the design of the roadway should meet current design standards throughout the length of the proposed project.
2*	Any build alternative that requires crossing the Tennessee River on new alignment should be constructed downstream of the existing Pickwick Dam.	The alternatives should be consistent with the determination made at the June 2002 interagency meeting between TDOT, FHWA, USCG, USACE, and TVA that determined the best location for a new Tennessee River crossing would be downstream of the existing Pickwick Dam. TVA would like to see traffic removed from the Pickwick Dam for improved safety and operational considerations.
3**	The overall costs of implementing the alternative must not be substantially higher than other reasonable alternatives that meet Criteria 1 and 2.	If a given build alternative utilizing new alignment is determined to cost substantially more than other constructible alternatives on new alignment that have been identified as reasonable based upon Criteria 1 and 2, then the alternative would not be considered reasonable due to costs and may be eliminated from further consideration.
4**	To the extent practical, the alternative should avoid or minimize impacts to known environmental constraints or sensitive areas identified during the environmental planning process.	GIS constraints data is currently being utilized to help map potential build alternative alignments that will avoid and/or minimize environmental impacts to the extent possible. Other potential alternatives identified by agencies or the public will be analyzed to determine the potential impacts to known constraints or sensitive areas. All potential alternatives will be compared to determine severity of environmental impacts. Although alternatives can be considered reasonable based on Criteria 1, 2, and 3, even if they result in

		some substantial environmental impacts, alternatives that successfully avoid known constraints or sensitive areas will be considered more reasonable than those that result in direct impacts to such resources. If the more environmentally sound alternatives are reasonable (meet criteria 1, 2, and 3), constructible, and of comparable costs, then the less environmentally sound alternatives may be eliminated from further consideration, unless there are other reasons to continue studying the alternative.
**Criteria 1 and 2 must be met in order for an alternative to be considered reasonable.* ***Although an alternative may be considered reasonable because it meets Criteria 1 or 2, if other reasonable alternatives are identified that are more environmentally sound and/or are less expensive than the alternative in question, then the alternative may be eliminated from further consideration.*		

Tennessee Environmental Streamlining Agreement (TESA) Concurrence Document for Concurrence Point 1

Purpose and Need and Study Area for the Proposed State Route 128 Improvements From State Route 57 to State Route 226 (Airport Road) in Hardin County, Tennessee Environmental Assessment

(Project #: 36010-0221-14; PIN #: 100885.00)

The Tennessee Department of Transportation has submitted for your review and concurrence summary information for the State Route 128 Improvement project including a preliminary Purpose and Need Statement and a description and mapping of the proposed Study Area. Once you have had a chance to review the enclosed documents, please sign this form to indicate your concurrence.

Return the signed form to Mr. Tom Love at the address below within 45 days of the date of this letter (March 23, 2009):

Mr. Tom Love
Transportation Manager 1
Environmental Division TDOT
Suite 900 - James K. Polk Building
505 Deaderick Street
Nashville, Tennessee 37243-0334

or E-mail to: Tom.Love@tn.gov

If you do not concur with the information provided or need additional time to review it, please contact Mr. Tom Love via writing prior to the end of the 45 day review period indicating your reasoning for nonconcurrence and/or your request for review time extension. As outlined in the TESA agreement TDOT will assume you concur with the information provided for your review if no response is received.

This agency feels all provisions of the Tennessee Environmental Streamlining Agreement for Concurrence Point 1 for the above project have been satisfied.

Agency: _____

Concurrence: _____
(*Name and Title*)

Date: _____