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

## MEMORANDUM

| TO: | Don Ellis, Manager 2 <br> Program Development and Scheduling Office |
| :--- | :--- |
| FROM: | SSteve Allen, Director <br> Project Planning Division |
| DATE: | November 2,2007 |

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\begin{array}{ll}
\text { SUBJECT: } & \text { Transportation Planning Report, PIN \# 107774.00, State Route 28, from State } \\
& \text { Route } 62 \text { at Clarkrange to the improved four-lane section three miles north of } \\
& \text { Grimsley, Fentress County. }
\end{array}
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I am enclosing a copy of the subject report bearing the signatures of the appropriate Department personnel. In addition, a PDF file of the study is available via PPRM and the TRANSPORTAL / Business Applications / Transportation Planning Reports / PROJS W/PDF'S.

This report is being provided for your use in determining priorities, establishing future scheduling, and initiating further development of the project.

If you need further information, please contact me.
SLA/pwl
Enclosure
Cc/enc: State Senator Tommy Kilby, State Representative John Mark Windle, Fentress County Executive John B. Mullinix, Jamestown Mayor Gwenith Duncan, RPO Representative Ken Mabrey, FILE.

Ec: Ed Cole, Paul Degges, Doug Delaney, Bob Brown, Chris Christianson, Jeff Jones, Ralph Barnes, Jeanne Stevens, Ralph Comer, Teresa Estes, Ed Wasserman, Kelly Henshaw, Nancy Sartor, Jim Moore, Gary Chapman, Harold Jackson, Charles Bush, Tom Love, David Thompson, C.L. Tilley, Rusty Staggs, Bill Hart, Terry Gladden.

## TRANSPORTATION PLANNING REPORT

STATE ROUTE 28 (U.S. 127)<br>FROM STATE ROUTE 62 AT CLARKRANGE TO IMPROVED FOUR-LANE SECTION THREE MILES NORTH OF GRIMSLEY FENTRESS COUNTY<br>PIN\# 107774.00



PREPARED BY
TENNESSEE DEPARTMENT OF TRANSPORTATION PROJECT PLANNING DIVISION

| Recommended by: | Signature | DATE |
| :---: | :---: | :---: |
| CHIEF OF ENVIRONMENT AND PLANNING | Edcole | $11 / 1 / 07$ |
| TRANSPORTATION DIRECTOR PROJECT PLANNING DIVISION |  | $10.31-07$ |
| TRANSPORTATION MANAGER 2 PROJECT PLANNING DIVISION |  | $10 / 3 / 100^{-}$ |

## PROJECT VICINITY




## BACKGROUND INFORMATION

## Project History

This Transportation Planning Report will evaluate various options for improving the State Route 28 (U.S. 127) corridor from State Route 62 at Clarkrange to the improved four-lane section approximately 3 miles north of Grimsley. This project is a segment of a Feasibility Study initiated at the request of local elected officials in 1999 and completed in 2000. The Feasibility Study also included a segment from Interstate 40 to State Route 62 which has progressed into the environmental phase of development. This report sets the groundwork to upgrade the segment in consideration to allow for a four-lane roadway from Interstate 40 to Jamestown.

## Community Profile

Fentress County is located in northeast Middle Tennessee atop the Cumberland Plateau. The county seat of Jamestown was established in 1828 and began as a small agricultural trade center. In 1926, World War I hero Alvin York established the York Institute in Jamestown to provide educational opportunities to the residents of the area. In addition to agriculture, manufacturing and mining have played major roles in the Fentress County economy. More recently tourism has become a major part of the local economy with close access to the Big South Fork National River and Recreation Area, Pickett State Park, and the Sgt. Alvin C. York State Historic Area. In addition, with hundreds of acres of trails, horse campgrounds, and riding stables, Fentress County has become known as the Trail Riding Capitol of the Southeast. With approximately 500 square miles, Fentress County recorded 16,625 people in the 2000 census. According to the U.S. Census Bureau, the population was estimated to have grown to 17,159 in 2005. The entire project falls within the unincorporated city limits of Clarkrange and Grimsley which have back to back limits near State Route 85.

## PRELIMINARY PURPOSE AND NEED

The purpose of the proposed project is to develop a route that improves the transportation link between the Fentress County Seat of Jamestown and Interstate 40. The completion of this project will provide continuity of width between the existing four-lane section south of Jamestown and the proposed four-lane section from Interstate 40 to State Route 62 that is now in the early phases of development. This improved roadway will comply with the intent of legislation passed by the General Assembly to connect all county seats by a four-lane highway to the interstate system (TCA § 54-5-102). The purpose of the project also includes improved safety for vehicles and pedestrians, reduction of travel delays for through traffic, and enhancement of regional and local economic development opportunities. In addition, the project is included in TDOT's threeyear Multi-modal Work Program which recognizes substandard rural highways and provides initial
funding to begin the planning, environmental, and preliminary engineering processes. Both State Senator Tommy Kilby and State Representative John Mark Windle have gone on record to support the improvement of State Route 28 in Fentress County.

The majority of this $9 \pm$ mile project presently consists of two 11 ' lanes with $3^{\prime}$ to $8^{\prime}$ shoulders. The base year (2011) Annual Average Daily Traffic (AADT) is calculated to range from 7,950 north of Grimsley to 10,450 at the southern end of the route in Clarkrange. This AADT range is expected to increase to 11,490 and 17,770 respectively by the design year of 2031. The percentage of trucks of the total AADT ranges from 6 to 8 in both the base and design years. This segment is deficient in horizontal alignment with 72 percent of the route containing no-passing zones. This compounds traffic delays as the route is frequently utilized by farm tractors that access fields abutting the roadway. Clarkrange High School is located on State Route 28 near State Route 85 and South Fentress Elementary School is located on State Route 85 just off of State Route 28. Both schools generate both vehicular and school bus travel along the route during certain hours of the day. The two school zones reduce speed to 35 MPH in an area where the posted speed is 55 MPH . Utilizing the annual average daily traffic acquired from TDOT's Tennessee Roadway Information Management System (TRIMS) database for years 2003 through 2005 and the calculated vehicle miles of travel, a crash rate (crashes per one million vehicle miles) was determined by TDOT's Safety Planning Office for the existing route. The analysis calculated the crash rate to be 1.81 . This can be compared to the statewide average rate of 1.70 for a rural two-lane highway.

The base year (2011) and design year (2031) "Level of Service" (LOS) for the study segment was analyzed for this report. The proficiency of roads are described by their LOS which is a measure of the ability of roads to accommodate motor vehicle traffic and the subsequent physical and psychological comfort levels of drivers. The LOS analysis incorporates several factors including traffic volumes, number and width of lanes, terrain, percent no passing zones, directional split, heavy vehicles, and shoulder widths. The LOS is a qualitative measure that describes 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. General descriptions of operating conditions for each of the levels of service are as follows:

## LOS Traffic Flow Conditions

A Free flow operations. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. The general level of physical and psychological comfort provided to the driver is high.

B Reasonably free flow operations. The ability to maneuver within the traffic stream is only slightly restricted and the general level of physical and psychological comfort provided to the driver is still high.
C Flow with speeds at or near free flow speeds. Freedom to maneuver within the traffic stream is noticeably restricted and lane changes require more vigilance on the part of the driver. The driver notices an increase in tension because of the additional vigilance required for safe operation.
D Speeds decline with increasing traffic. Freedom to maneuver within the traffic stream is more noticeably limited. The driver experiences reduced physical and psychological comfort levels.
E At lower boundary, the facility is at capacity. Operations are volatile because there are virtually no gaps in the traffic stream. There is little room to maneuver. The driver experiences poor levels of physical and psychological comfort.
F Breakdowns in traffic flow. The number of vehicles entering the highway section exceed the capacity or ability of the highway to accommodate that number of vehicles. There is little or no room to maneuver. The driver experiences poor levels of physical and psychological comfort.

The project was divided into two sections for planning purposes. Section 1 begins at State Route 62 and extends to the Kiley Road/State Route 85 area. Section 2 picks up at that point and extends to the improved four lane route at the project's terminus. The LOS calculations were completed for each section. The following LOS table represents the results of the calculations:

## LEVEL OF SERVICE

| Section 1 | Section 2 |
| :---: | :---: |
| E | E |
| E | E |
| A | A |
| B | *A |

*If either of the Section 2 proposed optional alignments as discussed later in this report are implemented, the existing route will continue to operate at a LOS E.

## PROPOSED IMPROVEMENT

The proposal would involve upgrading the existing two-lane roadway to an improved fourlane roadway. There are three separate build options proposed for this project as well as the NoBuild Option. The No-Build Option, which, as the name implies, denotes that only minor improvements (such as safety improvements and normal maintenance) would be made to the existing road and/or intersection areas. As depicted on the Project Area Topography Map and the aerial photograph, the three build options (Option A, Option B, and Option C), are represented as corridor alignments. This connotes each option is recommended to be aligned within the corridor limits that are illustrated on the aerial photograph. These corridors are approximately 1000 to 2000 feet in width depending on the option and vicinity of the option within the project limits. This allows flexibility in planning an acceptable roadway placement. In addition, Option A, which follows the existing corridor, incorporates three optional proposed typical sections. The necessary right-of-way to build the project will vary depending on the terrain, land use, and environmental considerations. A brief description of the corridor alignments of the build options is as follows:

Option A - It is proposed to improve the highway generally within an approximate 1000' corridor along the existing route, shifting from side to side in some areas and possibly aligning on new location for short segments to minimize impacts to homes, businesses, and/or environmental resources. The three optional typical sections were investigated for Option A along varied segments of the route. In the vicinity of State Route 62, the typical section should match the northern terminus of the proposed project from Interstate 40 and continue approximately 1.5 miles to the north. This is an urban section which has 4 @ 12' travel lanes, a 12' continuous center turn lane, 12' shoulders, and curbs and gutters within approximately 104' of right-of-way. In addition, sidewalks are recommended with this typical section. From approximately 1.5 miles north of State Route 62 to Banner Roslin Road the above mentioned urban typical section may be extended, or a five lane rural section which eliminates the curbs and gutters and incorporates shoulders and ditches may be utilized. A rural typical section can be designed and signed at a higher speed than an urban section. The 12' shoulders will provide for pedestrian and bicycle use. A final option for this segment would implement a 4 lane divided section with 12 ' shoulders and a 52' median. After a thorough field examination, it is considered a divided highway would affect approximately the same number of residences and businesses as the rural five lane section. From Banner Roslin Road to the 4 lane divided section at end of the project, the 4 lane divided section with a $52^{\prime}$ median should be provided to allow for a smooth transition and continuity into the Jamestown area.

Options B and C - These two optional corridors are on new location and generally leave the existing route in the proximity of the Kiley Road/State Route 85 area and tie back into the
existing route near the northern terminus of the project. Option $B$ parallels the existing route to the west while Option $C$ parallels the existing route to the east. The recommended typical section for both these options is a 4 lane divided section with 12 ' shoulders and a 52 ' median. This typical section allows for a higher design speed and has a lower statewide average crash rate than an undivided highway. It will compliment the 4 lane divided section at the northern terminus of the project and is standard for the rural environment of the area. The approximate 2000' corridors should provide the needed area to encompass a feasible roadway placement which will meet the purpose and need of the project with the concurrence of the community.


#### Abstract

ESTIMATED COSTS PER MILE* Reconstruct 2 to 5 Lane with Shoulders and Curbs and Gutters \$ 11,100,000 Reconstruct 2 to 5 Lane with Shoulders and Ditches \$ 10,500,000 Reconstruct 2 to 4 Lane (Divided Highway) \$ 9,200,000 Construct New 4 Lane (Divided Highway) \$ 8,600,000 *Average estimated calculated costs with right-of-way, terrain, and construction factors applied. Utility relocation costs are not included and may significantly increase the costs of a reconstructed roadway. Inflation will increase the cost of the project approximately 10\% per year from the calculated base year of 2007. Based on these 2007 per mile costs, the total cost of the project will range from $\$ 77,400,000$ to $\$ 99,900,000$ minus the utility costs.


All three build options will improve the sight distance throughout the route by improving the deficient horizontal and vertical alignments. The improved roadway will also improve access to Interstate 40 from all points along the route as well as provide the county seat of Jamestown a four-lane connection to the interstate. Enhanced access to commercial, industrial, and agricultural sites along the route will also benefit the Fentress County region. Besides providing for improved local and regional accessibility, other primary beneficial effects of the build options include: (1) improved safety and operating conditions along the project corridor; (2) increased traffic capacity; and (3) enhancement of future planned growth by local and/or regional land use planning agencies.

As depicted on the Level of Service Table, both the base year (2011) "Level of Service" and the design year (2031) LOS were calculated as "A" or "B". This is true regardless of which build option is implemented. The comparable LOS for the no-build option in both the base year and design year was calculated to be "E". In addition, the disadvantages of the No-Build Option include continued inadequate operating conditions and safety concerns inherent with increased traffic volumes, inadequate roadway geometrics and poor alignments.

The primary adverse effects of the three proposed build options include: (1) the loss of land for right-of-way; (2) the possible displacement of residences and businesses; (3) temporary construction impacts (dust, siltation, equipment noise, etc.) during the construction period; and (4) impacts to the environment to be determined in detail during the environmental phase of the project.

Advantages of the No-Build Option include less disruption of the existing land use patterns and no disruption of the area due to construction. Also, mitigation measures to moderate environmental impacts would not be necessary.

If either Option B or Option C is selected, the State Route 28 designation would be shifted to the alignment on new location. The portion of the existing route which is not utilized for the improvement may lose its state route designation and the responsibility for its maintenance could be assigned to Fentress County.

After reviewing the pros and cons of all four options, it is recommended one of the build options ( $\mathrm{A}, \mathrm{B}$, or C ) be implemented. The exact roadway placement within one of the three optional corridors will be decided at a later date with the concurrence of the community and upon further review of environmental and design data.

On January 12, 2007, a stakeholders meeting regarding the subject project was conducted at the Fentress County Courthouse. Participating in the meeting were the Fentress County Executive, Fentress County Highway Superintendent, a Fentress County Commissioner, representatives from the Fentress County Planning Commission and Fentress County Chamber of Commerce, and a member of the Citizen Resource Team from the project on State Route 28 Interstate 40 to Clarkrange. The meeting discussed the proposed corridor options and their respective advantages and disadvantages as to costs, environmental concerns, effect on planned utility improvements, and presumed public opinion based on the CSS process conducted on the segment of State Route 28 between Interstate 40 and Clarkrange. After much discussion it was resolved to proceed with the options as presented with no changes. The Fentress County Executive will receive a copy of this TPR and further public involvement will be initiated during the NEPA process.

## PRELIMINARY ENVIRONMENTAL ANALYSES

A preliminary investigation into this project's possible environment impacts within the "Area of Potential Effects" (APE) is reflected on the attached "Preliminary Environmental Evaluation" checklist. The APE is the geographic area in which an undertaking may directly or indirectly impact the environment. In addition, a "Project Area Enviro-Map" is attached which was generated from the Environmental Protection Agency's Web-based mapping tool for viewing environmental
information. A more comprehensive analysis of the impacts will be completed at a later date to comply with the National Environmental Policy Act (NEPA).

A "Pre-field Historic/Architectural Resource Assessment" for State Route 28 from State Route 62 to North of Grimsley was conducted by TDOT's Environmental Division. In assessing the historic/architectural resources existing along the SR 28 corridor in Fentress County, TDOT historians have thus far consulted their own maps and online records maintained by the National Register of Historic Places. These sources indicate no National Register listed or eligible historic resources within the project corridor. However, the field survey may identify heretofore unrecorded or undocumented resources.

Hazardous Materials spills on highways are a potential source of water quality degradation and a possible public health hazard. The Tennessee Emergency Management Agency (TEMA) has the responsibility and authority for coordination of all state and local agencies during crashes involving hazardous materials. The TEMA has demonstrated its ability to effectively manage such incidents. The project will be evaluated when preliminary right-of-way plans are completed to determine the impacts on any possible underground storage tank (UST) sites. TDOT has demonstrated its ability to deal with UST sites to minimize impacts on the environment. In the event hazardous substances/wastes are encountered within the proposed right-of-way, their disposition shall be subject to the applicable sections of the Federal Resource Conservation and Recovery Act, as amended; and the Comprehensive Environmental Response, Compensation, and Liability Act, as amended; and the Tennessee Hazardous Waste Management Act of 1983.

Alterations to streams or other aquatic sites designated as waters of the State or waters of the United States require either individual or general Aquatic Resource Alteration Permits (ARAP) from the State of Tennessee, individual or Nationwide 404 U.S. Army Corps of Engineers permits, and, where applicable, a TVA 26a permit or letter of no objection. Construction projects disturbing one or more acres of land require storm water control permits issued by the State of Tennessee pursuant to the National Pollutant Discharge Elimination System. For any project that affects water flowing into a sinkhole or cave, or for any impact that may affect the ground water via a sinkhole, a Class B Injection Well permit may be required. This process involves obtaining a permit before the project is let if sinkholes are known to exist. If other sinkholes are encountered after construction has begun, the appropriate TDOT offices will be notified and the appropriate steps taken to comply with laws, regulations, and permits. These or any other permit requirements identified in the project development process will be complied with.

All wetland impacts require confirmation by, and coordination with, permitting agencies. All require either general or individual Aquatic Resource Alteration Permits (ARAP) from the State of Tennessee. Almost all require either nationwide or individual permits from the U.S. Army Corps of

Engineers pursuant to Section 404 of the Clean water Act. Other agencies such as the U.S. Fish and Wildlife Service and the Environmental Protection Agency (EPA) may be involved in the permitting process. Wetland impacts which are subject to either State or Federal jurisdiction, and which do not meet criteria for either general or nationwide permits require individual permits; these typically require compensatory mitigation for impacts. In general, isolated wetlands with less than 0.25 acre impacts may come under the guidelines of a general permit issued by the State of Tennessee; no mitigation is required. This permit cannot be used, however, for a cumulative series of small impacts. Some wetland impacts of less than 0.5 acres qualify for Corps of Engineers nationwide permits. TDOT should carry out further coordination with the regulatory agencies before preparing mitigation plans and submitting permit applications. Permit requirements and mitigation plans will be based on these discussions.

## SEVEN GUIDING PRINCIPLES

The Tennessee Department of Transportation has adopted seven guiding principles against which all transportation projects are to be evaluated. These guiding principles address concerns for system management, mobility, economic growth, safety, community, environmental stewardship, and fiscal responsibility. These guiding principles are discussed in regard to all three of the proposed build options.

## Guiding Principle 1: Preserve and Manage the Existing Transportation System

All three build options would provide continuity of width, upgrade the deficient alignment, and will provide the county seat of Jamestown a link to Interstate 40 that meets highway design and safety standards. The corridor options were designed to be reasonably wide enough to encompass a feasible roadway placement which will meet the purpose and need of the project with the concurrence of the community. In addition, regardless of which build option is chosen, the proposed alignment will provide connectivity from Jamestown and Fentress County to Interstate 40 and the Crossville area and enhance the existing area transportation network. Although with the selection of Option B or C, the portion of the existing route which is not utilized for improvement may lose its state route designation and the responsibility for its maintenance could therefore be assigned to Fentress County, the reduced amount of traffic on this segment should also reduce maintenance costs.

## Guiding Principle 2: Move a Growing, Diverse, and Active Population

The No-Build Option does not address the need of Fentress County for improved northsouth connectivity for the movement of both passenger and commercial vehicles. Each of the
build options provide for this connectivity and improve access throughout Fentress County. An improved roadway is needed to serve the Jamestown area and allow for economic expansion along the State Route 28 corridor. The agricultural resources will also benefit in conjunction with industrial and commercial enterprises considering the number of farm vehicles which utilize the highway. Improved access to schools and educational institutions along the improved route and in other sections of Fentress County will also benefit the growing population.

## Guiding Principle 3: Support the State's Economy

Fentress County's industries and commercial businesses require adequate transportation facilities to operate at their potential. As of June, 2007 the unemployment rate in Fentress County was $5.6 \%$. This is compared to a $4.1 \%$ average for the state as a whole. The primary transportation artery in Fentress County is State Route 28. This artery provides the County's most direct connectivity to the interstate system of any route in the region. Typically, adequate transportation facilities are directly correlated to the economic viability and vitality of any region in the state. Therefore, in order to compete with other areas of the state and the southeast, accommodate future transportation demands, and expand the economic base to compliment the state's economy, the improvement of the State Route 28 corridor is central to these goals.

## Guiding Principle 4: Maximize Safety and Security

During the three year period from 2003 through 2005, 135 crashes were reported. Of this total, 53 (39.2\%) were rear-end, 19 (14.1\%) were angle, 12 each ( $8.9 \%$ ) were either head-on or sideswipe, and the remaining 39 (28.9\%) were one-vehicle crashes. There were 47 injury crashes and 1 fatal crash. The high percentage of rear-end crashes is indicative of a high speed rural highway with few turn lanes. A crash rate for these three years was determined by TDOT's Safety Planning Office. The analysis calculated the crash rate to be 1.81 . This can be compared to the statewide average rate of 1.70 for a rural two-lane highway. The statewide average rate for a rural four-lane divided highway and a four-lane highway with a continuous turn lane are both lower at 0.80 and 1.11 respectively. As traffic volumes continue to increase, it is expected, without any improvements, the crash rate will also continue to increase. In addition to an expected lower crash rate with the implementation of one of the build options, an improved roadway should facilitate quicker and safer travel for emergency vehicles, both fire and ambulance.

## Guiding Principle 5: Build Partnerships for Livable Communities

Early in the process of this study, as well as the study which was conducted for State Route 28 between Interstate 40 and Clarkrange, TDOT has coordinated with local stakeholders to
receive their input into the planning process. As mentioned, a stakeholders meeting was conducted at the beginning of this study to discuss proposed corridor options and their respective advantages and disadvantages to the community. In addition, both legislative representatives for the region have gone on record to support the improvement of State Route 28 in Fentress County. The public involvement process will continue after the planning document is completed. Public hearings will be scheduled during the National Environmental Policy Act (NEPA) process and during the design phase of the project. Every effort will be made to mitigate any negative impacts to the local citizenry during the implementation of any build option. An improved transportation corridor that benefits the community with as few disruptions as possible is essential in providing for future planned growth of the region.

## Guiding Principle 6: Promote Stewardship of the Environment

The United States Congress enacted the National Environmental Policy Act of 1969 (NEPA) to establish a national policy to protect the environment. NEPA requires federal agencies to consider environmental issues prior to making any major decisions on projects that have federal involvement (e.g., funding or permitting). To determine a project's potential benefit or harm to the environment, NEPA requires an assessment of environmental impacts and an evaluation of options to avoid any identified adverse impacts to the environment. The Council on Environmental Quality (CEQ) was created by NEPA to oversee the federal implementation of NEPA, by interpreting the law and developing regulations and guidance. NEPA procedures must ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The regulations also spell out the three categories of actions (Categorical Exclusions, Environmental Assessments, and Environmental Impact Statements), as well as documentation requirements and format, the commenting process and public involvement requirements, and document filing requirements. This project is subject to all of these regulations and the NEPA process will be enacted accordingly.

## Guiding Principle 7: Promote Financial Responsibility

Estimated cost estimates based on various roadway typical sections were calculated for this report. These per mile cost estimates, as depicted earlier in this report, are offered for comparison purposes and will fluctuate with inflation and any unexpected setbacks.



## Preliminary Environmental Evaluation

If preliminary field reviews indicate the presence of any of the following facilities and/or Economic, Social, and Environmental categories (ESE), place an " X " in the blank opposite the item. Where more than one option is to be considered, place its letter designation in the blank. A more comprehensive analysis of the impacts will be completed at a later date to comply with the National Environmental Policy Act (NEPA).
1.) Hazardous Material Site or Underground Storage Tanks
2.) Floodplains
3.) Historical, archaeological, cultural or natural landmarks, or cemeteries $\qquad$
4.) Airport
5.) Residential establishment. $\qquad$
6.) Urban area, city, town, or community. (Clarkrange, Grimsley)
7.) Commercial area, shopping center. $\qquad$
8.) Institutional usages:
a. School or other educational institution
b. Hospital or other medical facility.
c. Church or other religious institution.
d. Public Building, e.g., fire station.
e. Defense installation.
9.) Agricultural land usage $\qquad$
10.) Forested land. $\qquad$
11.) Industrial park, factory. $\qquad$
12.) Recreational usages:
a. Park or recreational area, State Natural Area. $\qquad$
b. Wildlife refuge or wildlife management area. $\qquad$
13.) Waterway:
a. Lake
b. Pond
$\qquad$
c. River.
d. Stream
e. Spring. $\qquad$
14.) Railroad Crossings $\qquad$
15.) Project coordinated with $\mathrm{MPO} / \mathrm{RPO}$ and/or local officials. $\qquad$
16.) Other
$\qquad$
$\qquad$

A,B,C
$\qquad$
$-\mathrm{A}, \mathrm{B}, \mathrm{C}^{2}$
$\qquad$
$\qquad$
A,B,C
A,B,C

A,B,C

| $\mathrm{A}, \mathrm{B}, \mathrm{C}$ |
| :---: |
| $\mathrm{A}, \mathrm{B}, \mathrm{C}$ |
| $\mathrm{A}, \mathrm{B}, \mathrm{C}$ |
| $\mathrm{A}, \mathrm{B}, \mathrm{C}$ |

A,B,C
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$\qquad$
X

## PROJECT AREA EPA ENVIRO-MAP


*Impaired streams are among the waters that do not meet EPA quality standards. These waterbodies are designated under Section 303(d) of the Clean Water Act.
**EnviroMapper is a Web-based interactive mapping tool for viewing and querying environmental information. Enviromapper generates maps of your geographic area that contain environmental information stored in EPA's Envirofacts Warehouse. The type of environmental information includes: Superfund sites, drinking water, toxic and air releases, hazardous waste, and water discharge permits.







