Norfolk Southern Railway Company
Memphis Regional Intermodal Facility
Rossville, Fayette County, Tennessee

Administrative Action
Finding of No Significant Impact

Pursuant to the
National Environmental Policy Act of 1969 as amended
[42 U.S.C. § 4332(2)(c)]

by the

US Department of Transportation
Federal Highway Administration,

US Department of Transportation
Federal Railroad Administration,

and

Tennessee Department of Transportation

Cooperating Agencies:
U.S. Army Corps of Engineers
Mississippi Department of Transportation

Approved:

12/20/10
Date

Joseph C. Szabo
Administrator
Federal Railroad Administration

21 Dec 10
Date

Melissa Ridenour, Division Engineer
Eastern Federal Lands Highway Division
Federal Highway Administration

Project Commitments

Norfolk Southern Railway Company
Memphis Regional Intermodal Facility
Rossville, Fayette County, Tennessee

Norfolk Southern Railway Company (NSR) will develop the project in accordance with all applicable laws, the Tennessee Department of Transportation's (TDOT's) *Standard Specifications for Road and Bridge Construction* and NSR *Standard Specifications for Roadbed, Track and Structures*. TDOT specifications address sediment and erosion control and siltation; channelization; floodplains; construction impacts; utility relocation; and traffic maintenance and detours. NSR will stringently implement the Best Management Practices (BMPs) throughout the construction period.

TDOT/NSR will utilize the following measures to avoid, minimize, and/or mitigate impacts to the human and natural environment associated with construction and implementation of the Preferred Alternative.

- **Wetlands** – NSR will avoid wetlands where possible and minimize impacts to the extent practicable. However, wetlands within the footprint of the facility (7.31 acres) may be impacted by the proposed project. NSR will mitigate the unavoidable impacts to wetlands as required by permitting agencies. As on-site mitigation is impractical, NSR proposes to purchase wetland mitigation credits from the Wolf River Mitigation Bank at a 2:1 ratio.
- **Streams** – NSR will avoid streams where possible and minimize impacts to streams to the extent practicable. The proposed project may impact streams within the footprint of the facility. Based on the current design, the project may impact 5,352 linear feet of stream channel. NSR will minimize potential water quality impacts through the implementation of BMPs during both construction and operation of the facility. NSR will offset the unavoidable loss of stream channel through compensatory mitigation. NSR proposes to mitigate through Tennessee's stream mitigation in-lieu-fee program, which will ensure that appropriate stream mitigation is accomplished within the same watershed.
- **Floodplain** – NSR will incorporate the construction and maintenance practices outlined in the local floodplain practices to the extent practicable and does not anticipate floodplain impacts. For this project, NSR has adopted and will implement all construction and maintenance practices in Fayette County's floodplain management regulations. For encroachment in Zones AE or A, a professional engineer will certify that these encroachments will not increase the water surface elevation of the base flood more than one foot at any point within the community. The proposed stormwater control system will provide storage to allow discharges to mimic predevelopment hydrology, minimize initial flows following rain events, and decrease resultant peak flows.
- **Stormwater –** NSR will construct and implement a stormwater detention system that will provide adequate storage and treatment of stormwater runoff. NSR will adequately size detention basins and include control valves in discharge pipes to

serve as spill prevention and protection devices in the unlikely event that a spill leaves the concrete pad area. NSR will line the detention basins with at least a 12-inch thick layer of compacted clayey soil to reduce infiltration. NSR will follow appropriate BMPs to minimize erosion, turbidity, and/or other potential impacts to streams. NSR will avoid degradation of waters through the implementation of BMPs and a site-specific Storm Water Pollution Prevention Plan (SWPPP).

- **Permits** – TDOT/NSR will comply with all permitting requirements with respect to impacts to wetlands and streams, and as required by Sections 401, 402, and 404 of the Clean Water Act (CWA) as well as Tennessee's Aquatic Resource Alteration Permit (ARAP) program. Applicable permits include:
    - U.S. Army Corps of Engineers (USACE) Individual or Nationwide Permit for Impacts to Waters of the U.S. (including wetlands and aquatic resources). Provisional Permit received on May 14, 2010.
    - TDEC ARAP Individual or General Permit for Construction and Removal of Minor Road Crossings and Minor Alterations to Wetlands.
    - TN National Pollutant Discharge Elimination System (NPDES) Individual Stormwater Permit for Construction.
- **Air** – To reduce potential air impacts to nearby residents, NSR will use ultra low-sulfur transportation grade diesel fuel (0.0015 percent sulfur) for NSR container and trailer handling equipment. NSR will use Tier 4 technology on the overhead lift cranes.
- **Noise and Visual** – Though no significant noise or visual impacts are expected, to reduce potential noise and visual impacts to nearby residents, NSR will construct earthen berms along portions of the eastern and western sides of the facility as well as along portions of the western side of the lead track. Along the western edge of the proposed lead track adjacent to the residences along Neville Road, NSR will construct a landscape berm so that the top of the berm will be approximately 15' higher than the adjacent top of rail. NSR will control additional visual impacts by using non-standard 70' tall light poles in areas requiring illumination with downward directed fixtures to reduce off-site impacts.
- **Archaeological** – Though no known archaeological resources are within the project site, if an unidentified archaeological site is found during construction, TDOT/NSR will cease all construction activities in the immediate area where archaeological material is discovered. TDOT/NSR construction will not restart activities in this area until appropriate clearances are obtained. TDOT/NSR will immediately contact the Tennessee Division of Archaeology and any Native American tribes with interests in the area so that representatives may have the opportunity to examine and evaluate the archaeological material.
- **Operational Measures** – To reduce operational impacts, NSR will maintain and service equipment in the designated maintenance pad area with appropriate treatment systems. NSR will maintain controls in-place and operational in accordance with applicable permit requirements. NSR will secure the facility by

fencing and close circuit monitoring to prevent vandalism and unauthorized site access. NSR will properly train the facility staff on appropriate emergency response actions and protocols in the unlikely event of a hazardous materials spill. NSR will insure that the necessary contact information for local, state, and Federal emergency responders as well as emergency response contractor resources are readily available. Facility employees, working with NSR environmental staff and local authorities, will have around the clock access to these emergency response resources.

Table of Contents

1 Type of Action

This document is a Federal Highway Administration (FHWA) and Federal Railroad Administration (FRA) administrative action, Finding of No Significant Impact (FONSI).

The FHWA and FRA of the U.S. Department of Transportation (DOT) have determined that the preferred build alternative, Build Alternative 1, will not have any significant impact on the human and natural environment. This FONSI is based on a July 8, 2010, Environmental Assessment (July 8 EA), which was prepared by Tennessee Department of Transportation (TDOT), signed and issued by FRA, and adopted by FHWA. FHWA and FRA independently evaluated the July 8 EA and determined that it adequately and accurately discusses the needs, environmental issues and impacts of the proposed project and appropriate mitigation measures. The EA provided sufficient evidence and analysis for determining that an Environmental Impact Statement (EIS) was not required. The FHWA and FRA take full responsibility for the accuracy, scope and content of the EA. This FONSI should be read in conjunction with the approved EA.

2 Proposed Action

2.1 Project Overview

Norfolk Southern Railway Company (NSR) proposes to construct, own, and operate a new intermodal facility (IMF) known as the Memphis Regional Intermodal Facility (Memphis Regional IMF) to increase freight transportation capacity in the Memphis, Tennessee, region and to meet current and future demands for freight transportation to and from the Northeast U.S. An IMF is a facility where freight is transferred from one transportation mode to another, in this case, between trains and trucks, in order to efficiently deliver freight over long distances.

In February 2010, Tennessee was selected to receive funds for this project from the DOT, Transportation Investment Generating Economic Recovery (TIGER) Program as part of the American Recovery and Reinvestment Act (ARRA) of 2009. As a result of this Federal funding, the proposed Memphis Regional IMF project is subject to the requirements of the National Environmental Policy Act of 1969 (NEPA). This document was prepared to meet those NEPA requirements.[1] The DOT FRA, FHWA, and TDOT are the lead agencies for the proposed project. The Mississippi Department of Transportation (MDOT) and U.S. Army Corps of Engineers (USACE) are Cooperating Agencies.

2.2 Purpose and Need for Action

Existing infrastructure is not adequate to serve future transportation capacity needs in the Memphis region. A freight transportation bottleneck exists between the Memphis region and the Northeast U.S. The Memphis Regional IMF would help alleviate this bottleneck by increasing intermodal service capacity. To meet the increased demand

[1] See FRA NEPA requirements at 64 Fed. Reg. 28545 (May 26, 1999); see also FHWA NEPA requirements at 23 C.F.R. 771.

for capacity, NSR estimates a need for a new facility that can perform 327,000 annual lifts of containers and trailers between trucks and trains.[2]

To meet operational requirements and adequately serve future transportation capacity needs, the main required components for the IMF are:

- Tracks connecting the Memphis Regional IMF site to the NSR mainline;
- Six 4,050 foot long pad tracks to handle train engines and cargo to optimize transportation efficiency and maximize fuel savings and emissions reductions;
- Support yard with 34,500 feet of track in parallel strips to allow longer trains to be separated until they can be loaded/unloaded;
- Paved areas for parking approximately 2,200 trailers and containers on chassis necessary for daily operations at the IMF, which is equivalent to a minimum of 125 acres;
- Several small administration, maintenance, and operations buildings located on the support yard pad necessary for transportation operations, security, and maintenance; and
- Equipment maintenance pad with spill control and stormwater management features and other related facilities.

The purpose of the Memphis Regional IMF is to improve freight transportation capacity in the Memphis, Tennessee region to meet growing freight transportation demand. Anticipated benefits of the project include economic and employment benefits as well as a reduction of long-haul truck traffic on congested highways in the Memphis region. Less long-haul truck traffic should reduce damage to highways from heavy trucks, decrease traffic accidents, and improve air quality through the use of energy efficient transportation alternatives.

3 Summary of Alternatives

A suitable location is a critical requirement to satisfy the purpose and need for the Memphis Regional IMF. NSR used the following internally developed critical evaluation factors to consider a site viable:

- Sufficient Land. Sufficient land, properly configured, is necessary to develop a facility, which can meet intermodal demand and support the IMF operating requirements. The site needs to be a rectangular tract consisting of approximately 380 useable acres (approximately 7,000 feet long by 2,400 feet wide).
- Proximity to Rail Infrastructure. The project must be located near the NSR mainline with intermodal service, preferably not more than several miles away with direct track access reasonably possible.
- Proximity to Highway Infrastructure. The proposed site must be located in proximity to adequate highway infrastructure.

[2] In this context, a “lift” is a trailer or container loaded to a rail car or unloaded from a rail car.

Figure 1: Proposed Alternatives

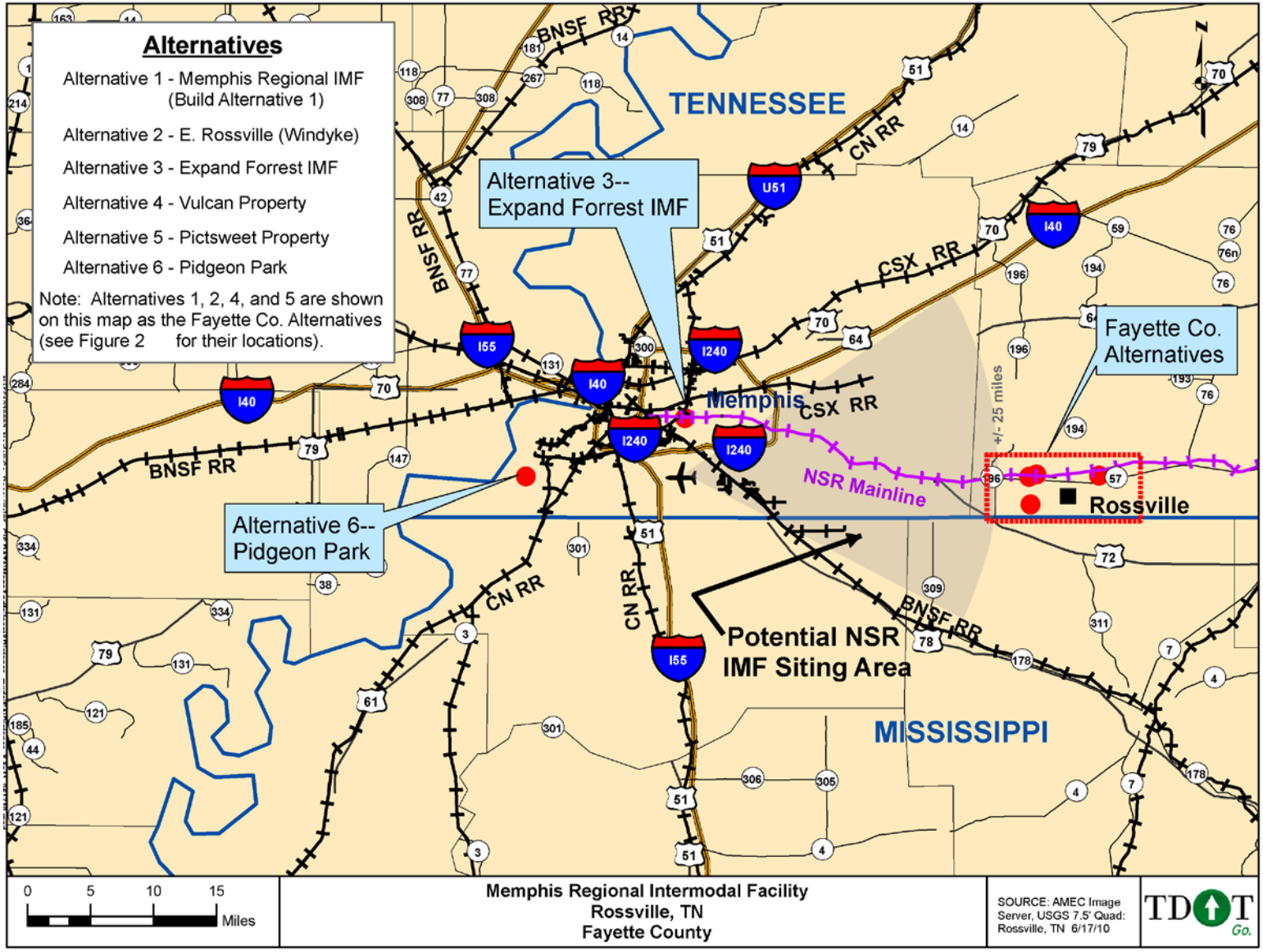
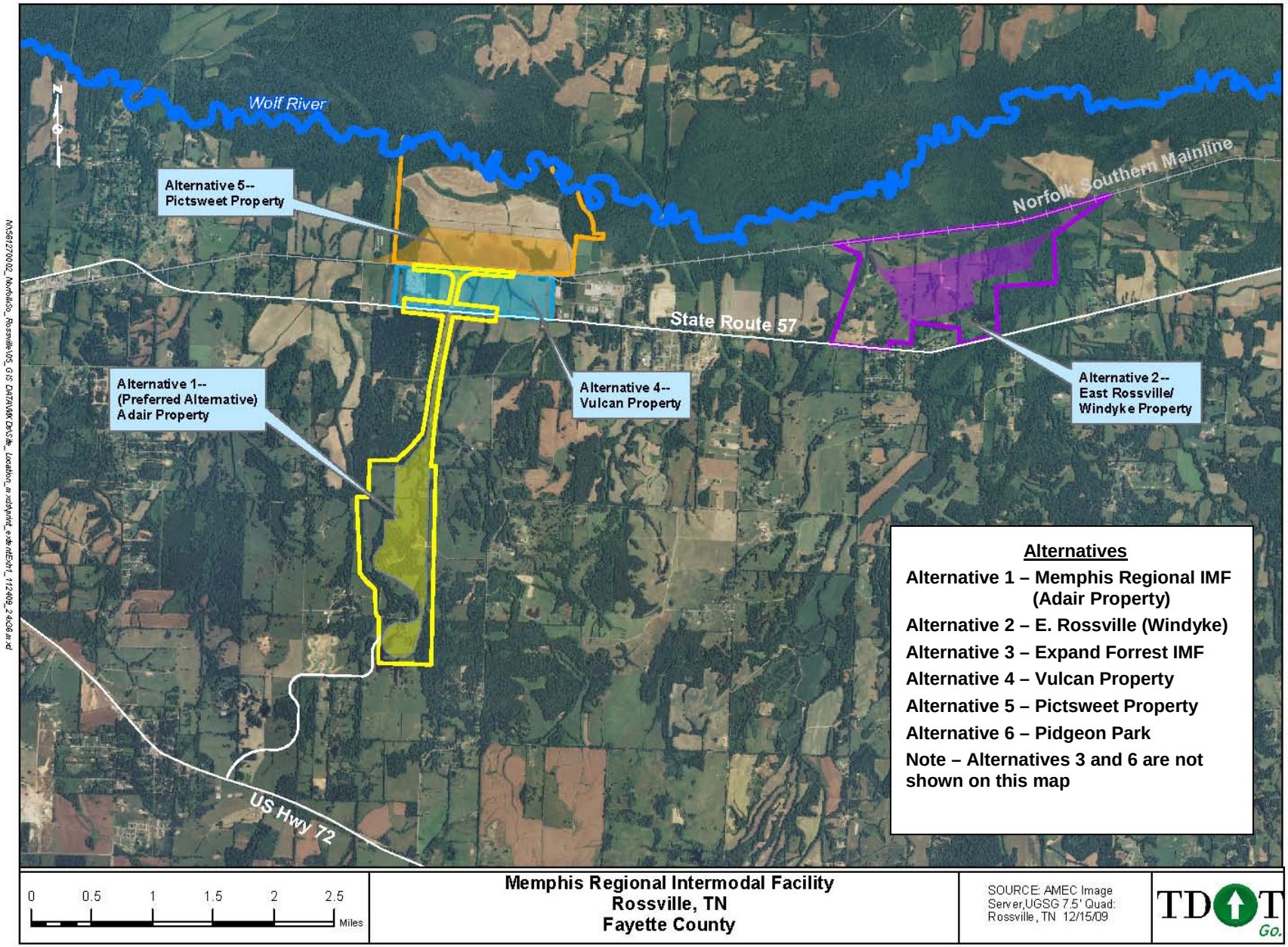


Figure 2: Alternatives Studied in Fayette County



- Location. The proposed IMF must be located near potential customers in an area convenient for industrial and commercial economic activities.

Between 2003 and 2009, NSR evaluated six alternatives for the Memphis Regional IMF project. They were identified based on public input and NSR's location research.

- Alternative 1 – Memphis Regional IMF (Build Alternative 1)
- Alternative 2 – East Rossville IMF (Windyke Property)
- Alternative 3 – Expand Forrest IMF
- Alternative 4 – IMF on Vulcan Property
- Alternative 5 – IMF on Pictsweet Property
- Alternative 6 – Intermodal Gateway at Memphis Pidgeon Park

3.1 Alternatives Reviewed But Eliminated From Further Consideration

Alternatives 3 and 6 are within Shelby County, inside Memphis, Figure 1. The remaining four alternatives are in Fayette County, Figure 2. All of the build alternatives considered would require construction of a new intermodal facility of a similar size and design, capable of meeting the operational requirements. Alternatives 2, 3, 4, 5, and 6 were evaluated as part of the TESA process (see section 5.1.2), against the above criteria and eliminated from further consideration because they:

- Failed to meet one or more of the NSR critical evaluation factors, which must be met for a project to be considered viable, or
- Were evaluated and judged inferior to Build Alternative 1 with respect to potential impacts to natural resources and cultural resources, or have undesirable operating costs or inefficiencies.

3.1.1 Alternative 2: East Rossville IMF (Windyke Property)

Alternative 2 (approximately 795-acre site) would include constructing an IMF along the south side of the mainline tracks on the east side of Rossville just north of State Route (SR) 57, Figure 2. This location satisfies the railroad's needs for adequate acreage and facility layout. However, use of the East Rossville IMF would increase highway traffic volume for the section of SR-57 from east of Rossville to SR-385, which would involve routing truck traffic through the City of Rossville. There was strong opposition to increasing traffic along SR-57 from the local community and other stakeholders. Also, this site is located at the maximum distance from Memphis that is considered efficient for truck-train transfer to occur within the Memphis market.

The lead tracks would be located within the Wolf River floodplain. Overall, the site topography is such that the northern portion of the property would need to be filled while a substantial cut would be needed along the south side of the property to bring the site to the required grade. The overall site elevation should result in good sub-grade conditions compared to the other low-lying sites (Alternatives 4 and 5) adjacent to SR-57. Environmental impacts would include several streams and wetlands and potentially impact a known Civil War earthwork. This site would be up-stream of the William Clark Conservation Area and along sections of the Wolf River designated as Exceptional

Tennessee Waters (ETW). Given the potential environmental impacts on area wetlands, the William Clark Conservation Area and sections of the Wolf River designated as ETW, Alternative 2 was eliminated from consideration in the TESA concurrence point 2 phase as the potential environmental impacts are more substantial than those of Alternative 1.

3.1.2 Alternative 3: Expansion of Existing Facility (Forrest IMF)

Alternative 3 would expand the existing Forrest IMF to create additional intermodal capacity, Figure 1. NSR currently operates the Forrest IMF five miles east of downtown Memphis. The IMF shares Forrest Yard with other non-intermodal NSR railroad operations, including train interchanges with the four other Class I railroads in the Memphis area. The Forrest IMF encompasses approximately 50 acres owned by NSR. The facility is currently operating at or near its capacity. Industrial development, sports arenas, the NSR mainline and residential housing surround the current facility. Consequently, opportunities for capacity expansion at the Forrest IMF do not exist due to its urban location. Since Alternative 3 cannot meet the required criteria of sufficient land identified in the Purpose and Need for the project, Alternative 3 is not viable and was eliminated from further consideration in the TESA concurrence point 2 phase.

3.1.3 Alternative 4: IMF on Vulcan Property

For Alternative 4, the IMF would be constructed along the south side of the mainline tracks in Rossville, Figure 2. This layout encompasses a tract of land owned by Vulcan Materials; therefore, the site is called the Vulcan property. This alternative is located about one mile west of Rossville between the NSR mainline and SR-57. Alternative 4 presents a feasible location with respect to rail operations; however, it includes only 300 acres and would require the relocation of existing businesses including a rail served stone distribution yard (Vulcan) and a planned-permitted asphalt operation. This alternative would increase traffic volume along SR-57 for the 3.5 miles between the IMF and SR-385. Additional environmental considerations include construction in a floodplain and impacts to streams and wetlands.

Alternative 4 is too small of a site and would not allow for the construction of an adequate facility layout necessary for the traffic volumes and service levels, Alternative 4 cannot meet the required criteria of sufficient land identified in the Purpose and Need for the project. Therefore, Alternative 4 is not viable and was eliminated from further consideration in the TESA concurrence point 2 phase.

3.1.4 Alternative 5: IMF on Pictsweet Property

Alternative 5 (approximately 884-acre site) would include constructing an IMF along the north side of the mainline tracks west of Rossville on the Pictsweet Property, Figure 2. This alternative would be located between the NSR mainline and the Wolf River. Although this location has adequate acreage, site development is constrained by the Wolf River floodway and floodplain. The majority of the facility would be located within the floodplain and grading work would require considerable site preparation and filling costs. Environmental considerations include impacts to several streams and wetlands. In addition, the U.S. Environmental Protection Agency (EPA), in agreement with other cooperating agencies, would need to remove a deed restriction on approximately 20

acres of land in a 65 acre restricted area on the west-side of the site to build the IMF.[3] This restriction was part of a 1993 Consent Order due to unauthorized construction in the area.[4] Avoiding these restricted acres would require a smaller, less efficient facility. Construction of Alternative 5 would also increase traffic on SR-57 for about three miles prior to its connection with SR-385 to the west. SR-57 is a two-lane road, which is considered a rural minor arterial. The access road would require construction of an overpass over the NSR mainline track to access to the site.

While Alternative 5 is a viable alternative, meeting the first four criteria identified in the Purpose and Need for the project, the cost of developing this site, as well as the potential natural resources impacts, the potential difficulty of environmental permitting, and potential land use restrictions in comparison to Alternative 1, resulted in Alternative 5 being eliminated from further consideration in the TESA concurrence point 2 phase.

3.1.5 Alternative 6: Intermodal Gateway at Memphis Pidgeon Park

Alternative 6 would require expansion of the Intermodal Gateway at Memphis in Pidgeon Park on the Canadian National Railway (CN) southwest of Memphis, Figure 1. Sufficient land is available for the development; however, to gain rail access, an expensive rail connection to the CN would be required. This would require that a deep trench be constructed from below the west end of Forrest Yard to the CN track. This trench would further reduce the capability of the Forrest rail yard. More importantly, the 12 to 13-mile CN route from Forrest Yard to Pidgeon Park passes through the busiest section of the CN Memphis terminal. Without extra route investments on the CN line beyond the above-mentioned connection, this route is incapable of handling the additional NSR trains in a timely manner. Without consistent train performance and truck competitive train schedules, Alternative 6 could not serve the projected demand for freight transportation, thus negating the purpose. This location would add approximately 39 additional rail miles for traffic to and from Memphis relative to the Fayette County sites. This alternative would also add extra operating costs. With the area's industrial development moving east and south of Memphis, the Pidgeon Park Alternative southwest of Memphis would increase drayage miles. Drayage is the cost associated with a vehicle hauling an item. These additional drayage miles would increase drayage costs.

Route deficiencies requiring exorbitant investment and extra rail transit time, operating cost issues and the fact that this alternative is unable to meet the required criteria of proximity to NSR rail infrastructure identified in the Purpose and Need for the project make Alternative 6 a non-viable alternative. Alternative 6 was eliminated from further consideration in the TESA concurrence point 2 phase.

Table 1 summarizes the assessment of each alternative as evaluated against the previously described screening criteria as part of the TESA concurrence point 2 phase (see section 5.1.2.1).

[3] Fayette County, TN, Fayette County Register, "Deed Book 389, page 79, Exhibit 5," 1993.

[4] EPA, "Docket No. 404-90-08," Signed December 8, 1993.

Table 1: Summary of Alternatives

Considerations	Build Alternative (Alternative 1) Memphis Region IMF	Alternative 2 East Rossville (Windyke Property)	Alternative 3 Expanded Forrest IMF	Alternative 4 Vulcan Property	Alternative 5 Pictsweet Property	Alternative 6 Pidgeon Park
1* – Sufficient Land	Yes.	Yes.	No - impractical to assemble a suitable amount of land.	No - requires difficult or impossible relocation of existing and planned businesses.	Yes - but EPA deed restriction on area needed for track connections to mainline must be removed to avoid shortening tracks beyond a reasonable and necessary level.	Yes.
2* – Proximity to NSR Rail Infrastructure	Yes - within 2 miles of NSR mainline.	Yes - adjacent to NSR mainline.	Yes - adjacent to NSR mainline.	Yes - adjacent to NSR mainline.	Yes - adjacent to NSR mainline.	No - deficient route on CN to access terminal. Additional route miles and transit time.
3* – Proximity to Highway Infrastructure	Yes - US Hwy 72 (Rural Principle Arterial), combination 2- and 4-lane sections (programmed for 4)	Yes - but SR-57 (Rural Minor Arterial), 2-lane road.	Yes - urban collector to SR-277.	Yes - but SR-57 (Rural Minor Arterial), 2-lane road.	Yes - but SR-57 (Rural Minor Arterial), 2-lane road.	Yes - adequate industrial access road to Interstate.
4* – Location	Yes.	Yes.	Yes.	Yes.	Yes.	Yes - but additional drayage miles would add cost and reduce rail efficiency and rail optimization.
5 – Impact to Natural Resources	Moderate impacts to natural resources: ▪ Affect ~ 3 to 8 acres of wetlands. ▪ Impact ~ 5,000 linear feet of stream. ▪ Potential impact to Zone A within unnamed tributary to Wolf River floodplain. ▪ Attainment for air quality	Potential serious impacts to natural resources: ▪ Affect ~ 4 to 6 acres of wetlands. ▪ Impact ~ 5,000 linear feet of stream. ▪ Portions of lead tracks to IMF would be within Wolf River floodplain. ▪ Potential run-off to Exceptional Tennessee Water (ETW). ▪ Attainment for air quality	Low impact to natural resources as site is within an urban area. ▪ Non-Attainment for air quality	Moderate impacts to natural resources: ▪ Affect ~ 10-15 acres of wetlands. ▪ Impact ~ 1,500 linear feet of stream. ▪ Connections to NSR mainline within Wolf River floodplain. ▪ Attainment for air quality	Potential serious impacts to natural resources: ▪ EPA consent order deed restricted land within project footprint. ▪ Affect ~ 15 acres of wetlands. ▪ Impact ~ 1,500 linear feet of stream with springs on site. ▪ Site within Wolf River floodplain. ▪ Attainment for air quality	Moderate impacts to natural resources: ▪ Potentially affect unknown acres of wetlands. ▪ Impact unknown linear feet of stream. ▪ Non-Attainment for air quality
6 – Impact to Cultural, Historical, and Social Resources	▪ No eligible or listed archaeological sites within project boundary. ▪ No disproportionate or adverse effect to minority or low-income populations	▪ Potential adverse effect on a 1.2-acre Civil War earthwork. ▪ Nearby minority population on Mt. Pleasant Road.	▪ No previously identified archaeological sites within project boundary. ▪ Nearby minority populations.	▪ No previously identified archaeological sites within project boundary. ▪ Nearby low-income population on Morrison Road.	▪ No previously identified archaeological sites within project boundary. ▪ Nearby adverse effect on low-income population on Morrison Road.	▪ No previously identified archaeological sites within project boundary. ▪ Nearby minority populations.

* Denotes criterion that must be clearly met for an alternative to be considered viable.

3.2 Build Alternative

Build Alternative 1 was developed with consideration of the purpose and need for the project, the required criteria for meeting the purpose and need (as summarized in Table 1 above), and impacts to the human environment in accordance with NEPA, minimizing and avoiding impacts as well as mitigation where appropriate. NSR held a Local government briefing and a public meeting in 2009 to gather input on the project's purpose and need, which provided local and public input regarding location alternatives. Previously studied alternatives were presented, including all of the alternatives described above. During these meetings, participants had the opportunity to discuss project needs and provide suggestions for possible alignments on a map of the study area.

Build Alternative 1 was retained for assessment and review of environmental impacts. As the conceptual planning for the Memphis Regional IMF proceeded, TDOT provided several opportunities for the public, governmental agencies and Non-Governmental Organizations (NGO) to review and comment on the proposed project, and especially Build Alternative 1, through the NEPA process and development of the July 8 EA. The following issues of particular interest were specifically evaluated for potential adjustments to further avoid, minimize or mitigate impact: Wetlands and Streams, Sensitive Habitats, Stormwater Management and Water Quality, Aquifer, Traffic, Visual and Lights, Noise, and Energy. Table 2 outlines the various revisions made to Build Alternate 1 during the review process.

Table 2: Summary of Revisions Made Based on Public Comment, Agency Review and Initial Design Process

#	Area of Interest	Original Impacts	Revision Description	Benefits from Change
1	Sensitive Habitats Wetlands/Streams	Place fill along and potential relocation of several hundred feet of Stream 6	Shift footprint to the east	Reduce impacts to Stream 6 from several hundred feet to less than 150 feet
2	Sensitive Habitats Wetlands/Streams	Impact Stream 6 meander, channelization and floodplain/riparian areas along approximately 300' of Stream 6	Bridge Stream 6 in two locations instead of using culvert(s) in single fill crossing location	Reduce impacts to less than 150 feet of Stream 6. Allow Stream 6 to maintain a natural bottom
3	Sensitive Habitats Wetlands/Streams	Utilize riprap along and/or channelize approximately 350' of Stream 6	Use retaining walls to avoid impacts to Stream 6	Avoid in-stream impacts to Stream 6 and associated floodplain for approximately 350'

Table 2: Summary of Revisions Made Based on Public Comment, Agency Review and Initial Design Process

#	Area of Interest	Original Impacts	Revision Description	Benefits from Change
4	Wetlands/Streams	Eliminate potential source water for downstream portions of Stream 4 by filling channel with earthen fill	Use rock fill as opposed to earthen fill in Stream 4	Rock fill would convey potential groundwater seepage to downstream portions of stream
5	Wetlands/Streams	Divert wet weather conveyance (WWC) away from Stream 5 to other basins, depriving Stream 5 of existing drainage	Convey existing WWC within project footprint to downstream portion of Stream 5	Provides surface flow to downstream portion of Stream 5
6	Sensitive Habitats Wetlands/Streams	Construct loop track across Wetland 4 and Stream 6 meander	Shift loop track to the east, avoiding Wetland 4 and meander	Avoids impacts to Wetland 4 and avoid channelize Stream 6
7	Wetlands/Streams Stormwater Water Quantity/ Quality Aquifer Floodplain	Allow stormwater from IMF pads to directly flow to adjacent streams	Manage stormwater flows using detention basins	Allows sediment deposition and regulates stormwater discharge so post-construction flows do not exceed pre-construction flows
8	Sensitive Habitats Wetlands/Streams Stormwater Quality	Use 2:1 slopes	Use 3:1 slopes to improve slope stability and reduce erosion	Flatter slopes are less likely to fail and erode causing sedimentation
9	Aquifer Stormwater Quality	Use higher permeability surfaces in the facility, such as super-pave asphalt	Use roller-compacted concrete in operating areas	Reduce infiltration from operating surface; Stormwater detention system would regulate flow from facility prior to discharge
10	Wetlands/Streams Stormwater Quality Aquifer	Design for ponds to infiltrate directly to aquifer	Design ponds as ‘dry’ clay-lined ponds to avoid infiltration and regulate flows to surface water	Protects aquifer
11	Traffic	Construct an access road to Knox Road or SR-57	Utilize Industrial Road to access the facility	Keeps traffic off of SR-57 and Knox Road

Table 2: Summary of Revisions Made Based on Public Comment, Agency Review and Initial Design Process

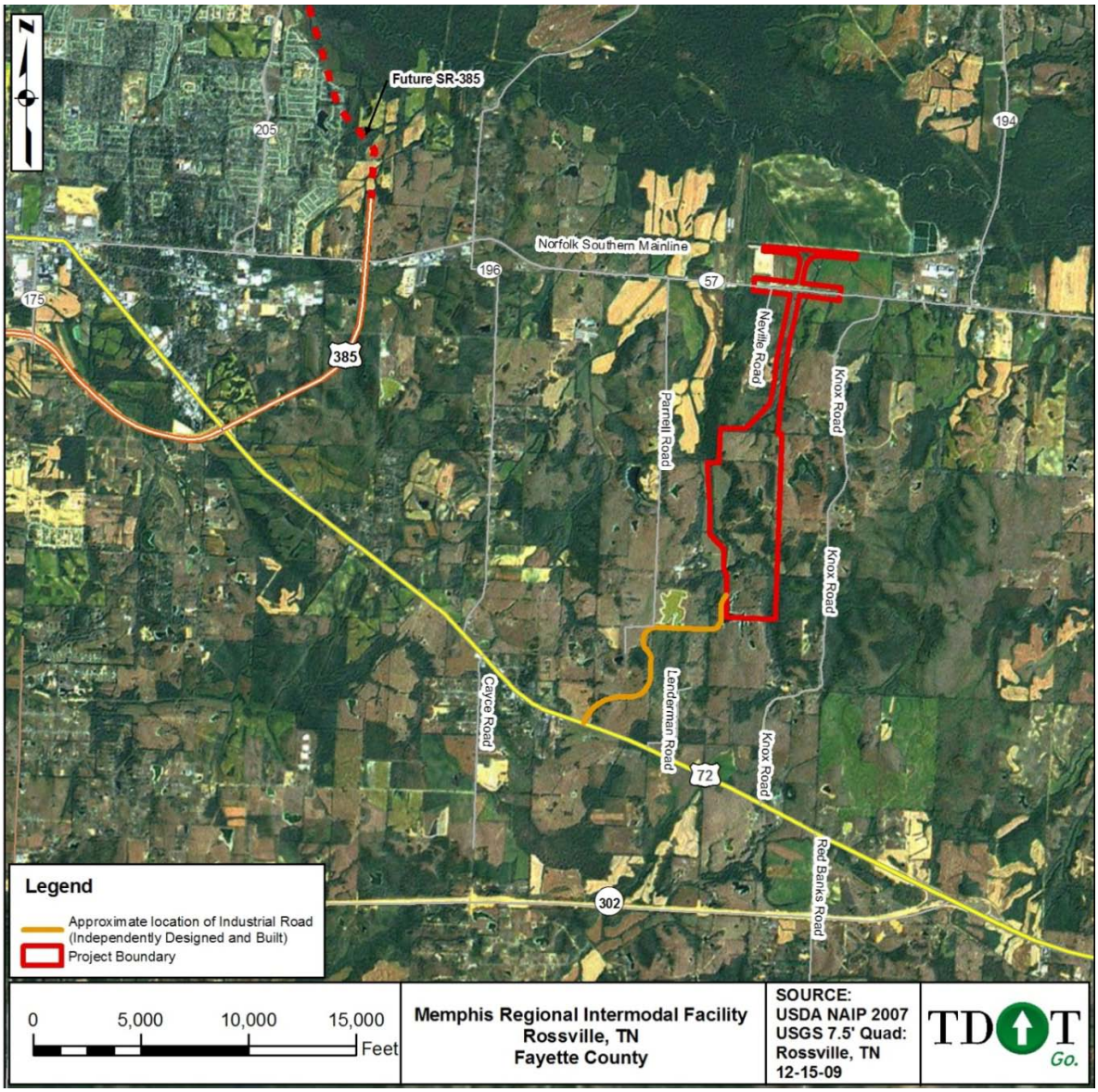
#	Area of Interest	Original Impacts	Revision Description	Benefits from Change
12	Traffic Noise	Construct an at-grade crossing at SR-57	Construct a grade separation at the SR-57 crossing	Traffic flows would not be disrupted; trains would not sound horn at crossing
13	Noise Visual	Do not construct berms around project boundary	Construct vegetated berms around facility boundary	Reduces visual and noise impacts to nearby residents
14	Visual/Lights	Use standard 100-foot light poles without directional lighting	Use directional lighting and shorter (70-foot) poles	Reduces visual and light impacts
15	Energy Noise Air	Utilize switches instead of loop track to change locomotive direction	Construct a loop track	Reduce need for switching, which reduces energy consumption and potential noise and air impacts
16	Energy	Construct non-LEED compliant buildings	Construct LEED buildings on-site	Have more energy efficient buildings on-site to reduce energy consumption
17	Water Quality Aquifer	No treatment for exposed Memphis Sand outcropping	Cover any exposed Memphis Sand outcrops within facility footprint at subgrade with layer of compacted clayey material	Protects aquifer

3.3 Preferred Build Alternative – Build Alternative 1

Build Alternative 1 consists of constructing and operating the proposed IMF in southern Fayette County, Tennessee, approximately 25 miles east of Memphis. Build Alternative 1 is located approximately 1.5 miles south of SR-57 and 0.5 mile west of Knox Road in the City of Rossville. The facility would occupy about 380 acres on Build Alternative 1's 650-acre parcel. Build Alternative 1 includes the required lead tracks from the NSR mainline, a loop track, container and trailer transfer and storage yard, a new SR-57 overpass and an access road. The SR-57 overpass would create a grade separation between the lead tracks and SR-57. The loop track at the south end of the facility would allow trains to reverse direction to return to the NSR mainline. Industrial Road, the access road, would connect the facility to U.S. Highway (US Hwy) 72. The adjacent property owner (Developer) is building Industrial Road to facilitate industrial and commercial development in the immediate area of the road. While

Industrial Road is being developed with non-Federal funds, the direct, indirect and cumulative impacts of Industrial Road were evaluated as part of the July 8 EA.

Figure 3: Preferred Build Alternative



TDOT selected Build Alternative 1 as the Preferred Build Alternative, because it achieves NSR's identified viability critical evaluation factors as follows:

- Sufficient Land: Sufficient land is available to develop the facility, meet intermodal demand, and support the infrastructure, operations, and storage requirements. The rectangular 650-acre property has adequate width and length for facility layout and provides suitable land for effective intermodal operations.
- Proximity to Rail Infrastructure: The site is located a reasonable distance (approximately 2 miles) from the NSR mainline and can be accessed via connection (lead) tracks under SR-57.

- Proximity to Highway Infrastructure: The proposed site is located near adequate highway infrastructure with connection to US Hwy 72 provided by Industrial Road. From US Hwy 72, the Memphis Regional IMF truck traffic would have connectivity to a four-lane road, SR-385. Both of these roads have available capacity and would allow trucks to make easy trips between the facility and customers throughout the Memphis metropolitan area.
- Location: The facility's customer base is generally moving eastward and southward in the Memphis metropolitan area. Locating the Memphis Regional IMF east of Memphis matches the region's industrial and commercial area for economic activity.

The assessment of impacts of Build Alternative 1, including indirect and cumulative impacts, reflected in the July 8 EA and related environmental studies, identified no significant impacts that will occur under Build Alternative 1. NSR developed measures to avoid, minimize or mitigate minor impacts; the unavoidable impacts and appropriate mitigation are discussed in more detail below. Mitigation implementation and monitoring are provided in applicable permits and pursuit to this approval under NEPA.

3.4 No-Build Alternative

The No-Build Alternative would continue to use the existing Forrest IMF in Memphis without expansion. The No-Build Alternative would not cause any immediate, direct impacts to the human or natural environment in the project area.

The No-Build Alternative would fail to satisfy the demand for needed additional IMF capacity within the Memphis region and fail to achieve the articulated Purpose and Need for the project:

- The projected requirement for intermodal freight is approximately 2-½ times the capacity of the Forrest IMF;
- The Forrest IMF cannot be expanded due to physical space limitations (surrounded by streets and houses) in an urbanized area of Memphis;
- The supplemental capacity to perform the projected lifts and to meet the additional transportation demands would not be available at the Forrest IMF;
- Growth in the freight market would cause an increase in long-distance highway truck traffic rather than an increase in environmentally preferable rail-truck intermodal service;[5]
- Without adequate rail-truck intermodal service, economic growth would be hampered; and
- Inadequate IMF capacity eliminates the public benefits of intermodal transportation by decreasing transportation[6] and energy efficiency[7] and increasing emissions.[8]

[5] FHWA Freight Analysis Framework (FAF) [Version 2.2", 2002 http://ops.fhwa.dot.gov/freight/freight_analysis/faf/index.htm] forecasts that the tons of freight transported will likely almost double by 2035 from its 2006 level.

3.5 Area of Potential Effect (APE)

The potential effects of the proposed project for both Build Alternative 1 and the No-Build Alternative are listed in Table 3.

Table 3: Areas of Potential Effects for Alternatives

Area of Potential Effect (APE)	Build Alternative 1 (Preferred Alternative)	No-Build Alternative
Land Use	Conversion from agricultural to industrial. Facility within Rossville Urban Growth Boundary (UGB) and zoned industrial. Industrial Road and surrounding ~1,500 acres being zoned commercial/industrial.	Zoned Industrial / Commercial
Social	No evidence of any low-income or minority populations or neighborhoods with predominantly low-income or minority populations adjacent or near project. Social interactions within community would continue unhindered.	No change
Air Quality	Minor increase in emissions of criteria pollutants and Mobile Source Air Toxics (MSATs) expected.	No change
Recreational Resources	None on-site	No change
Hazardous Materials	No existing hazardous materials sites identified within footprint. Only minor quantities of hazardous materials transported through IMF.	No change
Farmland	311 acres of unique and prime farmland	No change
Displacements	No relocations or displacements	No change
Noise	1 affected site with 3 residents.	No change
Section 4(f)	None on-site	No change
Visual	No areas of high visual quality or visually sensitive resources exist in area. Visual setting along SR-57 already disrupted by commercial and industrial facilities.	No change
Pedestrian and Bicycle	No bicycle paths or sidewalks within project area.	No change
Transportation	Improved efficiency in transporting freight. Reduced long-haul truck traffic and associated congestion and emissions	No change
Economic	Approximately 140 new full-time jobs plus temporary construction jobs. In Memphis area, cumulative economic impact of $2.7 billion and 6,186 new, saved, or benefited jobs by 2020.	No change
Cultural Resources	No listed or eligible archaeological resources for the National Register of Historic Places (NRHP).	No change

[6] ATA estimates long-haul truck productivity has decreased since 2002 due to a number of factors including congestion, fuel costs and regulation changes. [ATA, "Truck Weights and Lengths: Assessing the Impacts of Existing Laws and Regulations," 9 Jul 2008.]

[7] A train loaded with containerized freight can carry equivalent to about 280 trucks loaded with freight. [AAR, Freight Rail Works 280 Fact Sheet, 2009, http://www.freightrailworks.org/280.html]

[8] AAR estimates that on average, moving freight by rail as compared with moving freight by truck reduces greenhouse gas (GHG) emissions by 75%. [AAR, "Rail Intermodal Keeps America Moving," November 2009. http://www.aar.org/Economy.]

Table 3: Areas of Potential Effects for Alternatives

Area of Potential Effect (APE)	Build Alternative 1 (Preferred Alternative)	No-Build Alternative
Natural Resources	5,352 linear feet of stream; 7.3 acres of wetland; 1 acre of Zone A floodplain; Memphis Sands aquifer outcrop area; No federally- or state-listed endangered species; No National Wild and Scenic Rivers System (NWSRS), Exceptional Tennessee Waters (ETW), or Outstanding National Resource Waters (ONRW) within project.	No change
Energy	23.8 million gallons of fuel estimated saved on annual basis	No change

4 Summary of Project Impacts and Mitigation

4.1 Land Use

The majority of Fayette and Marshall Counties is rural in nature. The project area (including lead tracks, loop track, facility and SR-57 overpass) is located between the towns of Piperton and Rossville. The facility would be within Rossville city limits and it's Urban Growth Boundary (UGB). The project site is zoned in its own Industrial Development Overlay District. The District is designated M-1, general industrial, which would allow a broad range of industrial uses geared towards warehouse distribution, light manufacturing, an IMF with access limited to US Hwy 72, and limited retail sales and services. The project would convert land currently being used for agricultural to industrial and/or commercial use.

Industrial Road would be located within the rural area of the Fayette County Growth Plan and an un-designated area of Marshall County. Industrial Road and the surrounding approximately 1,500 acres are zoned commercial/industrial.

Based on current zoning and the UGB, Build Alternative 1 will not have a significant impact to land use.

4.2 Farmland

The Memphis Regional IMF, including the SR-57 overpass, would encompass approximately 650 acres with 330 acres being directly converted and 320 acres being indirectly converted from farmland. Land would be directly converted from farmland in areas of facility buildings, tracks, container and trailer storage areas, and paved areas or roads. Land would be considered indirectly converted if it would no longer be capable of being farmed for the duration of the existence of the facility because of restricted access. Based on the Natural Resources Conservation Service (NRCS) completed Farmland Form, approximately 311 acres of farmland within the project site is rated as prime and unique.

In accordance with Farmland Protection Policy Act (FPPA) regulations, TDOT and Natural Resources Conservation Service (NRCS) applied soil and site assessment criteria to determine the effects to farmland. The site assessment criteria are designed to assess important factors other than the agricultural value of the land to protect farmland. Each factor is assigned a score relative to its importance on a Farmland

Conversion Impact Rating Form (AD-1006). Sites that receive a total site assessment score of 160 points or less are given a minimal level of consideration for protection. Sites with a total site assessment score of 160 points or more require the consideration of alternative project alignments that would still serve the proposed purpose but would convert either fewer acres of farmland or otherwise impact farmland that has a relative lower value.

Build Alternative 1 including lead tracks, facility, and SR-57 overpass has a farmland site assessment score of 151 points. Since the point total is below 160 points, the use of farmland contained in Build Alternative 1 was determined not to be a significant impact to the environment, and therefore, an examination of alternatives to the use of this property was not required.

Based on the farmland site assessment, Build Alternative 1 will not have a significant impact to farmland.

4.3 Transportation

4.3.1 Rail

Build Alternative 1 would combine rail and truck freight movements to improve transportation capacity in the Memphis region and provide an energy efficient alternative for current and future freight transportation. It would also improve operational efficiency, volume levels, and speed of delivery. The additional capacity of Build Alternative 1 is required to meet growing freight demand. The facility would annually handle an estimated 187,000 loaded trailers or containers moving between the Memphis Region and the Northeast in addition to freight moving in other, lower volume corridors.

Based on the location and design, Build Alternative 1 will have positive impacts to rail transportation.

4.3.2 Traffic

As a direct result of the Build Alternative 1, traffic is expected to increase in the vicinity of the IMF's entrance on US Hwy 72. A two-lane segment of US Hwy 72 is expected to operate at Level of Service (LOS) D in calendar year (CY) 2032 with or without traffic generated by the Memphis Regional IMF.[9] With the 2.5% background growth and the traffic generated by the Memphis Regional IMF, the two-lane section of US Hwy 72 is expected to operate at LOS D in CY 2015. The LOS is a qualitative measure that is used to gauge the operational performance of an intersection. There are six levels ranging from "A" to "F" with "F" being the worst. LOS C is defined as fair progression with higher delays. LOS D is defined as unfavorable progression with congestion becoming apparent. Specifically, MDOT defined LOC C as an acceptable level of service for US Hwy 72.[10]

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[9] AECOM, "Memphis Intermodal Facility, Traffic Impact Study" November 2009 Revision, On file with TDOT and MDOT (Nashville, TN: AECOM).

[10] Phone call between AMEC (Robin Hagerty) and MDOT ED (Kim Thurman) on April 13, 2010; MDOT defined the required parameters of: 2.5% per year increase in existing traffic volumes to represent the background traffic along US Hwy 72, US Hwy 72 will be a four-lane rural principal arterial with a design speed of 70 mph, and LOS C being the acceptable level of service.

In April 2010, MDOT was in the process of finalizing right-of-ways maps and deeds and planned on beginning to acquire the needed right-of-way for this section of US Hwy 72.[11] MDOT plans to widen US Hwy 72 (from 2-lanes to 4-lanes)[12] starting in 2012. Accordingly, the 4-lane section of US Hwy 72 would operate at LOS C or better in CY 2015 and 2032 with the projected IMF traffic.

US Hwy 72 is expected to carry between 13,900 vehicles per day (vpd) and 15,000 vpd depending on growth rate[13] in CY 2015 near Industrial Road, including site generated traffic. From CY 2015 to 2032 traffic volume is expected to increase to a total volume of between 16,500 vpd and 22,200 vpd depending on growth rate, including site generated traffic.

In anticipation of the planned widening of US Hwy 72 to four lanes in the vicinity of the project area, MDOT has requested that the design and construction of the proposed intersection of Industrial Road and US Hwy 72 include widening US Hwy 72 to four-lanes, with stub-outs to the east and west.[14] By incorporating the planned widening of US Hwy 72 into the design of the proposed intersection, MDOT would avoid impacts to the intersection during the future widening of US Hwy 72. MDOT is a participating and cooperating agency for the NEPA documentation.

Based on the evaluation and analyses of existing and future conditions, traffic generated by the proposed Memphis Regional IMF is expected to have a minimal impact on the adjacent roadway network in the below configuration. In order to address the expected operational impacts of the Memphis Regional IMF and provide safe traffic operations, the following configurations were included in the Traffic Impact Study. The private Developer would make these project-required improvements in conjunction with a MDOT Highway Occupancy Permit (HOP).

- One each turn lanes for right and left turning vehicles from Industrial Road onto US Hwy 72.
- Channelize the southbound right turning movement on Industrial Road at US Hwy 72.
- Add an eastbound left turn lane on US Hwy 72 at the intersection with Industrial Road.
- Locate the intersection of US Hwy 72 and Industrial Road to provide adequate sight distance to the west and east.
- Add acceleration and deceleration lanes on US Hwy 72 at the intersection with Industrial Road.

Though the southbound left turning movements onto US Hwy 72 from Industrial Road are predicted to be LOS D to LOS F (CY 2015 and 2032), the expected number of left

[11] Letter to Commissioner Nicely, TDOT from Executive Director Brown, MDOT dated April 27, 2010

[12] Mississippi DOT 2010-2013 STIP, US72 from FR302 to Tennessee State Line, NEED ID 4752 and May 2005 Widening of US 72 from SR 302 to the Tennessee State Line Desoto County FONSI.

[13] The 13,900 vpd and 16,500 vpd based on 1% per year growth rate for existing (background) traffic on US Hwy 72. The 15,000 vpd and 22,200 vpd is based on 2.5% per year growth rate.

[14] Meeting with MDOT, NSR, AECOM, AMEC, and Developer in Batesville on October 22, 2009.

turning vehicles during the peak hour is 18 vehicles or less. Therefore, the warrants necessary to justify a signal are not met for this intersection.

The other turning movements, eastbound left turning movement from US Hwy 72 onto Industrial Road and southbound right turning movement onto US Hwy 72 from Industrial Road (CY 2015 and 2032), are predicted to be LOS C or better, an acceptable level of service.

NSR considered several rail access alternatives to the facility. Among the issues considered were grade crossings. The lead tracks of Build Alternative 1 must cross SR-57 in order for trains to access the facility. Build Alternative 1 includes a crossing at the north end of the project near the NSR mainline that will be a grade-separated crossing to ensure that local traffic is not interrupted by trains on the lead track. The crossing would consist of construction of the SR-57 overpass.

Based on the planned widening of US Hwy 72, the configuration of the intersection of US Hwy 72 and Industrial Road, and the SR-57 overpass, Build Alternative 1 will not have a significant impact to traffic.

4.4 Social

4.4.1 Social/Community Cohesion

Build Alternative 1 would not represent a barrier to social interaction or community cohesion. The facility is rural with only approximately 55 residences located within ½ mile of the project limits and with another approximate 20 residences located within ½ mile of the Industrial Road. There are no schools, day-care, churches, or hospitals located within the project site.

Residents on Neville Road in Tennessee may experience an increase in noise levels from train traffic. Residents on North Lenderman Road in Tennessee and Mississippi may experience a similar increase in noise levels along with increased congestion due to truck traffic. However, none of these increases were determined to be significant.

Local school buses utilize the section of US Hwy 72, where the construction and operating traffic would enter the facility. Some school buses travel on SR-57, which would be placed on a temporary bypass while the grade separation overpass is constructed over the lead tracks to the facility.

These impacts are temporary and are not significant. Overall, Build Alternative 1 will not have a significant impact to community cohesion.

4.4.2 Community Services

The facility might cause a slight increase in the need for fire, police, hospital or other type of emergency services due to increases in traffic and population. The Town of Rossville in Fayette County, Tennessee will provide the emergency services. Area roads will remain unimpeded to ensure safe and uninterrupted passage for area residents.

Build Alternative 1 will not introduce impediments to the provision of community services. As such, Build Alternative 1 will not have a significant impact to community services.

4.4.3 Environmental Justice

This project was developed in accordance with Executive Order (EO) 12898 and *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* (1994), which requires identifying and mitigating disproportionately high and adverse impacts on minority and low-income populations with respect to human health and the environment.

Based on the U.S. Census data for the project area, coordination with local government, and a field review in 2009, it was determined that this project would not have a disproportionately high and/or negative impact on low-income or minority populations.

The nearest low-income neighborhood, based on information from the Town of Rossville, is located on Morrison Road, approximately 1.7 miles from the Memphis Regional IMF. Several low-income families live on Knox Road southeast of the facility. The Memphis Regional IMF will not have a disproportionate impact directly or indirectly on the Morrison Road neighborhood or the low-income families living on Knox Road due to distance and intervening topography. No significant impacts are anticipated on local communities and the effects of the project on minority and/or low-income populations would be expected to be the same as those on non-minority and/or non-low-income populations.

The two closest neighborhoods with predominantly minority populations, based on discussions with local officials, include a neighborhood located approximately 2 miles north of downtown Rossville off SR-194 and a neighborhood located approximately 1.5 miles east of downtown Rossville off Mt. Pleasant Drive. The minority neighborhoods are approximately 5.2 miles and 4.0 miles from the proposed Memphis Regional IMF and no significant impacts to these neighborhoods are anticipated.

Based on the lack of low-income and minority populations in the project area, Build Alternative 1 will not have a significant impact to environmental justice.

4.5 Displacements

Build Alternative 1 will not cause any business or residential relocations or displacements.

4.6 Economic

The Memphis Regional IMF would be operated by approximately 140 employees, 65% of whom are expected to be shift workers. Additional short-term jobs would be created both on- and off-site during construction and site development. At this time, it is anticipated that most employees would be from Fayette, Shelby and Marshall Counties as well as the surrounding region. Build Alterative 1 is located in an area characterized by average weekly wages and median household incomes that are higher than the statewide average. This creation of employment would result in additional personal income for the purchase of goods and services within the region.

The benefits attributable to the Memphis Regional IMF when it is fully operational, are expected to have a cumulative economic impact of $2.7 billion and 6,186 new, saved, or benefited jobs by 2020 in the Memphis Area. In this context, a benefited job is one at a

company that uses intermodal transportation to reduce costs and consequently is more profitable such that the job is more secure.

Another economic impact of Build Alternative 1 is the potential taxes payable by NSR and others related to the construction and operation of the Memphis Regional IMF and the development it is projected to attract, which will increase the funds available to support government activities.

Build Alternative 1 will have positive impacts to economic development in the Memphis area.

4.7 Air Quality

4.7.1 Conformity

A portion of Fayette County near Rossville, Tennessee, remains under a maintenance plan until 2015 to ensure that air quality remains in attainment of the Lead (Pb) National Ambient Air Quality Standards (NAAQS). However, the project site is located outside the maintenance plan coverage. Fayette County, Tennessee, and Marshall County, Mississippi, are in attainment for all of the Transportation Conformity regulated criteria pollutants.

As noted above, Fayette County is designated in attainment for all NAAQS. A portion of the county near Rossville, however, was historically designated as nonattainment for Pb in 1993, and then re-designated as attainment in 1995. This area, therefore, remains under a maintenance plan until 2015 to ensure that air quality remains in attainment of the Pb NAAQS.

No substantial emissions of Pb are anticipated with the construction and operation of the proposed IMF, consequently the General Conformity emission thresholds will not be exceeded and no significant impacts to air quality are anticipated.

4.7.2 Mobile Source Air Toxics (MSATs)

An analysis of Build Alternative 1, indicated that an additional 5,838 vehicle-miles traveled (VMT) per day are estimated in association with the proposed Memphis Regional IMF.[15] However, the diversion of these units and their associated VMT would produce significant reductions in: highway hours of travel (over 3 million hours); fuel consumption (nearly 24 million gallons); and CO2 emissions (over 265,000 tons). In 2015, the Memphis Regional IMF is projected to handle 186,798 loaded units (containers and trailers) of traffic to and from Northeastern US points that currently move on the highway. Diverting this number of units from truck to rail would save more than 185 million miles of truck VMT, because the average length of the diverted truck trips is around 1,000 miles each.

The increase in truck VMT and rail activity associated with Build Alternative 1 would lead to higher MSAT emissions (particularly diesel particulate matter) in the vicinity of the intermodal facility. The higher emissions would be offset somewhat by two factors: 1) the decrease in regional truck traffic due to increased use of rail for inbound and

[15] AMEC Earth & Environmental, "Memphis Regional Intermodal Facility, Air Quality Technical Report," December 2009, On file with TDOT (Nashville, TN: AMEC).

outbound freight; and 2) increased speeds on area highways due to the decrease in truck traffic. The extent to which these emissions decreases would offset intermodal center-related emissions increases is not known. However, NSR is committed to the use of ultra low-sulfur transportation grade diesel fuel (0.0015 percent sulfur) for NSR container and trailer handling equipment. In addition, NSR will use Tier 4 technology in the overhead lift cranes at the proposed Memphis Regional IMF.

The maximum expected increase in truck traffic at the proposed facility is 834 trucks per typical weekday (less on weekends) (1668 round trips), which is less than 1.5 percent of EPA's guidance for total annual average daily traffic (AADT) for particulate matter and less than 1.2 percent of FHWA's guidance for total AADT for MSATs. The particulate emissions from rail activity as estimated for the Memphis Regional IMF are not large enough to make up the remaining 98.5 percent of emissions associated with "air quality projects of concern." This evaluation supports the identification of the proposed Memphis Regional IMF as a Level 2 project that requires a qualitative analysis of MSATs due to the low potential MSAT effects.

The qualitative analysis of MSAT emissions for the Memphis Regional IMF indicates that the increase in MSAT emissions, which would be experienced only locally and offset by the removal of 186 million vehicle miles per year of loaded truck travel, amounts to a less than 1.4 tons per year (tpy) being emitted in Fayette County and less than 0.02 tpy in Marshall County. Diesel Particulate Matter (DPM) emissions associated with the proposed IMF are estimated at less than 8 tpy in Fayette County and less than 0.1 tpy in Marshall County. These projections utilized Tier 3 technology emissions, not Tier 4, which NSR will phase in for the facility as a mitigation measure, and does not include the future reductions in MSATs anticipated by EPA's mandated vehicle and fuel regulations, which project a significant decrease in MSATs – a 72% reduction by 2050 even if vehicle miles traveled increased by 145%. Construction-related MSAT emissions are not anticipated to be significant for this project as construction is not planned to occur over an extended building period. However, construction activity may generate temporary increases in MSAT emissions in the project area.

Accordingly, MSAT emissions resulting from the Memphis Regional IMF will not have a significant impact on air quality.

4.8 Noise

To predict future noise levels caused by the proposed Memphis Regional IMF, sound levels associated with construction, roadways, trains, and operation of cranes, loaders, and other equipment inside the yard area were determined separately. NSR developed rail and roadway traffic projections, as well as facility operation schedules, for the project for the design year 2032. TDOT/NSR completed highway traffic noise modeling of the project area for the existing scenario using the FHWA Traffic Noise Model (TNM) Version 2.5 computer program.[16] Following TDOT guidance on how to model the sound levels from the Memphis Regional IMF operating yard resulted in a conservative

[16] AMEC Earth & Environmental, "Memphis Regional Intermodal Facility, Noise Analysis," December 2009, On file with TDOT (Nashville, TN: AMEC).

approach whereby all IMF noise sources were assumed to be at the closest edge of the IMF operational area (where the cranes and packers would operate) relative to the receiver rather than at actual locations across the operating area(s). Six of the 17 receiver locations are located very near the state line or are in Marshall County, Mississippi. Accordingly, these land uses were also evaluated in accordance with MDOT's *Highway Traffic Noise Policy.*

Two receivers representing 21 residences located on and situated very close to US Hwy 72, currently exceed the Noise Abatement Criteria (NAC) of 67 Decibel (A-Weight) (dBA) due to existing traffic volumes on US Hwy 72. Both receivers are also expected to exceed the MDOT/FHWA noise abatement criteria in the Build 2032 scenario. Energy-Equivalent Sound Level (L_{eq}) values for these receivers are predicted to be approximately 1 to 2 dBA higher than the existing conditions. This condition would exist even with increases in traffic volume associated with vehicles entering and leaving the proposed facility. These increases are defined as 'minor' in accordance with FHWA's impact criteria and MDOT policy, and are not considered to be impacts caused by the project because the difference between the Build and No-Build scenarios is less than 3 dBA.

One existing receiver, which represents three Parnell Road residences in the vicinity of the AGS area, would experience traffic noise impacts according to FHWA/TDOT noise impact criteria. Future receiver noise levels in this area are predicted to be 12 dBA higher than existing sound levels due to the proposed Memphis Regional IMF without mitigation. It is anticipated the mitigation berms would achieve noise reductions of approximately 5 to 7 dBA at the receiver, reducing the impact category from 'severe' to 'moderate' impact at a Day-Night Sound Level (L_{dn}) of 6 dBA above existing L_{dn}. Moderate noise impacts are considered less than significant according to FHWA/TDOT noise impact criteria.

Due to public concerns identified during the NEPA process, proximity of certain residences, and potential future land uses in vicinity, NSR will construct noise barriers (earthen berms) on the proposed facility as follows: 1) along portions of eastern and western boundaries of the IMF facility and AGS area and 2) along portions of the western side of lead tracks (Neville Road area).

Noise reduction methodologies also include:

- Elimination of grade crossings from the project design by creating an overpass at SR-57. This will eliminate train horn blowing that is otherwise required at such crossings. Horn blowing may still occur within the facility for emergency warning purposes.
- Construct rail lines using continuous welded rail (non-jointed) track with radius of rail curvatures ranging between 6° (Radius 955.37') and 8°30' (Radius 674.69') with the majority of the rail curves consisting of an 8° (Radius 716.78') to minimize transient rail noises.
- Construct lead tracks with horizontal and vertical alignments by mainline elevations, topography and facility design considerations for the selected alternate. The facility grading plan, combined with natural topographic

features of the project vicinity, provide inherent noise reductions for many of the area residents.

- Operate rail and truck operations in the vicinity of the proposed facility at low speeds, thereby keeping speed-related noise emissions to a minimum.

Based on the planned mitigation and operational procedures, Build Alternative 1 will have less than a significant impact to noise.

4.9 Cultural Resources

4.9.1 Architectural/Historic

Pursuant to the guidelines for Section 106 of the National Historic Preservation Act (NHPA), as outlined in 36 C.F.R. Part 800, TDOT conducted studies to determine if any cultural resources exist in the project's Area of Potential Effect (APE) that are listed in or eligible for listing on the NRHP.[17]

Based on consultation with the Tennessee State Historic Preservation Office (SHPO) on August 27, 2009, TDOT conducted a records search at the Tennessee Historical Commission (THC) and the Mississippi Department of Archives And History (MDAH) to identify any historic sites listed or eligible for listing on the NRHP in the Area of Potential Effect (APE) for Build Alternative 1. The search revealed that no properties in the APE had been previously surveyed and no resources were listed in or previously determined eligible for the NRHP. In fact, no structures exist on the property except for a modern storage shed, which is less than 50 years old.

The field survey conducted determined that no architectural or historical features would be impacted by Build Alternative 1.

4.9.2 Archaeological Sites

TDOT conducted a records search to identify archaeological resources within the APE that would meet the Criteria of Eligibility for the NRHP set forth in 36 CFR Part 60.4.[18] No listed or eligible archaeological resources were identified within the archaeological APE. Ten archaeological sites were identified within a 1.25 mile (2 km) record search buffer around the APE. These archaeological sites included 8 prehistoric sites (3 with historic components) and 2 historic sites. No determination of eligibility for the NRHP had been conducted for any of these 10 sites.

TDOT and FRA coordinated with local government and Native American (American Indian) tribes. On September 29, 2009, letters were sent to City of Rossville and Fayette County Mayors. On October 13, 2009 and June 30, 2010, letters were sent to tribal representatives. No tribes expressed any specific concerns regarding the project site though the Chickasaw Nation asked to be informed should any discoveries occur during construction, describing the area surrounding the project site as aboriginal homelands of the Chickasaw and an area important to them.

[17] AMEC Earth & Environmental, "Memphis Regional Intermodal Facility, Viewshed Survey," 17 November 2009.

[18] AMEC Earth & Environmental, "Memphis Regional Intermodal Facility, Phase 1- Archeological Report," December 2009.

A field survey during May through July 2009 recorded two previously undocumented archaeological sites (40FY456 and 40FY457) within the APE. Site 40FY456 is a historic site in an open pasture. Site 40FY457 is a historic archaeological site on a rise east of a stream that crosses the project site. All artifacts from both 40FY456 and 40FY457 were recovered from the upper soil layers (approximately down to 20 inches) (plowzone of former agricultural fields) and no evidence of intact cultural deposits at deeper depths was noted. Due to the lack of intact subsurface archaeological deposits or foundation remnants, the degree of plowzone disturbance in the site areas, and the gaps in the archival record, Sites 40FY456 and 40FY457 were not recommended as eligible for inclusion on the NRHP and no further archaeological investigations were recommended. The field survey conducted determined that no archaeological features would be impacted by Build Alternative 1.

4.10 Recreational Resources

No outdoor recreational land and water areas or facilities were identified as being established from grants-in-aid from the Land and Water Conservation Fund (LWCF) in the project area for Build Alternative 1.

4.11 Section 4(f)

No Public Park, recreation land, or wildlife refuge are within the project area for Build Alternative 1.

4.12 Natural Resources

TDOT prepared an ecology study for Build Alternate 1.[19] The results are outlined below.

4.12.1 Water Quality and Aquatic Resources

Several streams and ponds occur on-site, which likely provide habitat for various small fish as well as crayfish and aquatic insects. However, no essential fish habitat or fisheries of special concern occur on-site. No trout streams occur on-site. Short-term impacts to the area's habitat would consist of dust, noise and changes in land use. Long-term impacts would consist of permanent loss of open and small wooded tracts as a result of the additional right-of-way (ROW) needed. Based on the planned open space and percentage of open or wooded areas within Fayette and Marshall Counties, Build Alternative 1 will not have a significant impact to terrestrial resources.

Within the Wolf River watershed, the site is dissected by numerous wet weather conveyances (WWCs) and small intermittent streams, which eventually flow into one of two unnamed tributaries of the Wolf River. Build Alternative 1 will impact a total of 5,352 linear feet of streams. NSR will mitigate the impacts mitigated to a less than significant level off-site by making a comparable payment to Tennessee's in-lieu-fee program (Tennessee Stream Mitigation Program [TSMP]).

Several farm ponds were identified on or immediately adjacent to subject property. These impoundments range in size from less than one acre to 18 acres. Build

[19] AMEC Earth & Environmental, "Memphis Regional Intermodal Facility, Ecology Report," 8 January 2010.

Alternative 1 will impact a total of six ponds approximately ten acres; however, three ponds (totaling 5.6 acres) are non-jurisdictional waters of the U.S. The impacted lengths to jurisdictional ponds are included as stream impacts, mitigated to a less than significant level off-site through the TSMP.

NSR is designing the project to avoid and minimize wetland and stream impacts where practicable. NSR minimized impacts to on-site aquatic resources while achieving the basic project purpose. Design features that allow for avoidance and/or minimization of wetland and stream impacts include the following:

- After determining minimum sizing of facility structures, site features were overlaid on topographic and wetland mapping to avoid impacting streams and wetlands, where possible.
- Avoid re-channelization during bridge construction.
- Design stream crossings at or near 90 degree angles, where practicable, to minimize stream impacts.
- Design stream crossings to avoid meanders to reduce stream length impacts.
- Maintain natural bottom of streams at crossings, where practicable.
- Utilize rock drains to allow natural groundwater flows to continue to feed undisturbed downgradient segments of streams.
- Use retaining walls to avoid placing fill in stream channels and/or stream relocations.
- Minimize rechannelization when using culverts.

NSR located the project to avoid streams and wetlands to the extent possible. Within the limits of geotechnical concerns, slopes were steepened to reduce the footprint of the facility on floodplains. Native material from other areas of the site and/or clean fill will be used as fill material in wetland areas.

4.12.2 Wetlands

Approximately 7.5 acres of confirmed wetlands at 11 sites were identified within or near the anticipated project limits. Build Alternative 1 will impact a total of 9 wetlands with 7.31 acres. NSR will mitigate the impacts to a less than significant level off-site by purchasing wetland credits from Wolf River Mitigation Bank, LLC within the same 8-digit Hydrologic Unit Code (HUC) watershed as the project.

4.12.3 Floodplains

Areas of Fayette County are subject to periodic inundation from flooding and are regulated by the Fayette County Flood Damage Reduction District. Because the Memphis Regional IMF is partially located with a flood prone area, the design will take into account the Fayette County Regulations. The project includes 32 acres of Zone A and 4 acres of Zone AE. The project will impact less than 1 acre of floodplain. A no rise certification will be issued for project as part of the design.

The Memphis Regional IMF area is less than 1.5% of the 12-digit HUC Wolf River Subwatershed (43,204 acres) with the project draining into the Unnamed Tributary to

Wolf River (TN08010210004–0400). The less pervious areas of the IMF, approximately 233 acres of paved surface and 76 acres of track, is less than 2% of the portion of the 0301 subwatershed south of the Wolf River between Piperton and Rossville (approximately 15,500 acres). The general hydrology of Industrial road is a mixture between the Wolf River Watershed (08010210) and the Nonconnah Creek Watershed. The Nonconnah Creek Watershed (08010211) drains 281 square miles across Tennessee and Mississippi.[20] The Nonconnah Creek empties into the Mississippi River Watershed (08010100).

In accordance with EO 11988, the analysis of floodplain impacts includes provisions of the Clean Water Act, the National Flood Insurance Act, the Flood Disaster Protection Act, and other applicable provisions relating to floodplain impacts. For the project, NSR will adopt all construction and maintenance practices in Fayette County's floodplain management regulations and obtain the appropriate zoning authorizations from Fayette County for this project. While NSR plans to voluntarily comply with such local criteria whenever possible, there may be instances where those criteria are incompatible with rail operations.[21] For the project, NSR has incorporated all construction and maintenance practices, aside from the permitting and approval requirements, in Fayette County's floodplain management regulations.

NSR will design the water crossings to convey floodwaters so that there is no major risk of property damage or loss of life due to the encroachment in the floodplains. Impacts to the floodplain or floodplain encroachment will be supported by analysis of design alternatives with consideration given to: capital costs and risks; and economic, social and environmental concerns. Based on the proposed design features, the Memphis Regional IMF will not have a significant impact on the floodplain including riparian habitat and local residences/businesses. The floodplain will not change significantly due to the project.

4.12.4 Aquifer/Groundwater

The Memphis Sand aquifer is part of a sequence of water bearing aquifer units that forms the Mississippi Embayment and underlies a vast area including parts of Kentucky, Tennessee, Alabama, Arkansas, Mississippi, Louisiana and Texas. Recharge to the Memphis Sand aquifer is, in part, from precipitation on the outcrop, which is located along the eastern edge of the formation in proximity to Build Alternative 1. In the outcrop-recharge belt, the Memphis Sand aquifer is considered to be under water-table conditions (unconfined). In this area, the potentiometric surface is complex and

[20] TDEC, Nonconnah Creek Watershed (08010211) of the Mississippi River Basin, Water Quality Management Plan, November 9, 2000.

[21] As noted in Section 3.1 of the EA, in recognition of the importance of rail transportation in interstate commerce, Congress has enacted legislation providing that federally regulated railroads operating in interstate commerce are not subject to otherwise applicable local and state laws. See Interstate Commerce Commission Termination Act of 1995 ("ICCTA"), 49 U.S.C. § 10501 and the Federal Railroad Safety Act of 1970 ("FRSA"), 49 U.S.C. § 20101 et seq. In accordance with these and other similar federal laws, most state and local regulation of railroads is preempted in order to ensure barriers to interstate commerce are not created. This includes local planning, zoning and similar laws and ordinances. However, as discussed in this section, NSR will adopt local floodplain impact practices for this project.

generally conforms to the topography.[22] The recharge area covers over 2,200 square miles in west Tennessee alone.[23]

The planned facility will impact a surface area of less than 0.03% within the potential recharge area in West Tennessee. A large percentage of aquifer recharge occurs along exposures within the bottoms of streams and rivers where a relative constant or consistent source of water is present to infiltrate the sandy material. These features will remain largely intact at the project area although Build Alternative 1 will eliminate, cross or encapsulate some of the smaller streams. As such, recharge via such features should be preserved. NSR will develop a stormwater control and management system that will mimic pre-development site hydrology. In doing so, peak discharges to streams following rainfall events will not exceed pre-development flows. Likewise, post-development flows in the streams should be similar to pre-development flows. NSR will design the stormwater detention system so that post-construction flows do not exceed pre-construction flows (designed for the 100-year event).

The groundwater in the Memphis area generally flows towards the west and northwest.[24] A number of residential water wells are present around the project site along Knox Road, Neville Road, and SR-57. As reported by TDEC Ground Water Management Section, these wells are relatively shallow on the order of 90-150 feet deep.[25] Based on topographic relief in the area and on the planned elevation of the facility, most of the screened well intervals should be 80 to 150 feet below the planned IMF elevation. The Town of Rossville, located northeast of the project, obtains its water from three groundwater wells ranging from 90-102 feet deep.[26] City of Piperton obtains its water from Town of Collierville. Collierville is located northwest of the project area. Collierville draws its drinking water from eleven deep wells pumping from 350 foot and 600 foot sands.[27] Rossville and Collierville both have a Well-Head Protection Program and Well-Head Protection Plan. The maximum Wellhead Protection zone per TN Public Water Supply Rule (1200-5-1-.34) is 750 feet, which does not extend into the footprint of the proposed IMF.

A Geotechnical investigation of the site included the completion of 79 borings.[28] Based on the borings and the planned elevation of the IMF, the soil type representative of Memphis Sand aquifer may be exposed in two locations: at pad tracks 5/6 and the maintenance building. Construction techniques will provide protective layer over any exposed portions of the aquifer. Based on available data and studies, most recharge occurs in the streams. The facility will be developed primarily in the upland area. Consequently, the relatively small footprint combined with its upland location should not affect the overall recharge in the area. Over 40% of project area will be left undisturbed.

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[22] W.S. Parks and J.K. Carmichael, "Geology and Ground-Water Resources of the Memphis Sand in Western Tennessee," Water-Resources investigation Report 88-4182, (U.S. Geological Survey,) 1990.

[23] Water-Resources investigation Report 88-4182, "Geology and Ground-Water Resources of the Memphis Sand in Western Tennessee", U.S. Geological Survey, 1990, by W.S. Parks and J.K. Carmichael.

[24] Schrader, T.P. 2008, Potentiometric Surface in the Sparta-Memphis Aquifer of the Mississippi Embayment, Spring 2007.

[25] TDEC 2009, Ground Water Management Section, Database Information on Commercial and Residential Wells in Fayette County.

[26] Town of Rossville, Rossville Waterworks, 2007 Water Quality Report.

[27] Collierville Chamber of Commerce website: http://www.colliervillechamber.com/economic/utilities.htm#Water.

[28] Burns Cooley Dennis, Inc., June 3, 2010, Geotechnical Investigation. Proposed Memphis Regional Intermodal Facility, Rossville, Tennessee.

Based on the planned construction techniques and percentage of undisturbed area, Build Alternative 1 will not have a significant impact to groundwater.

4.12.5 Stormwater

NSR will develop and implement a stormwater control system that will provide storage to allow discharges to mimic pre-development hydrology and minimize initial flows following rain events and also decrease resultant peak flows. To prevent excessive runoff from entering the receiving streams during and following rainfall events, NSR will design and implement a stormwater detention system that will operate during both construction and operation of the facility. NSR will design the stormwater detention system so that post-construction flows do not exceed pre-construction flows (designed for the 100-year event).

For transportation facilities like the Memphis Regional IMF, EPA regulates post-construction stormwater discharges from vehicle maintenance and equipment cleaning operations, and specifies that only those portions of a rail transportation facility that are involved in such operations constitutes regulated stormwater from industrial facilities.[29] The stormwater management system receives runoff from the pads and track areas, which do not constitute industrial stormwater. The detention facilities will provide stormwater treatment above and beyond the requirements of the Tennessee Multi-Sector General Permit for the Discharge of Storm Water from an Industrial Activity (TMSP) No. TNR050000 and the discharge will meet water quality standards established by the State of Tennessee for the receiving water bodies.

The stormwater management system also serves a dual function. The drainage system for the facility will include valves at the outlets to the stormwater management system to allow the detention basin outfalls to be closed under certain circumstances. NSR will include these valve closures to allow the on-site detention to serve a secondary function for spill control in the unlikely event that a release of materials occurs that exceeds the containment capacity of the on-site concrete pad. NSR has installed similar detention valves at other facilities and their use was rare.

NSR will line the basins with at least a 12-inch thick layer of compacted clayey soil to reduce infiltration. NSR will use appropriate BMPs for construction stormwater management in accordance with TDEC and EPA guidelines to protect local waterbodies. Thus, Build Alternative 1 will not have a significant impact to stormwater discharge.

4.12.6 Federally Threatened or Endangered Species

Based on correspondence with the U.S. Fish and Wildlife Service (FWS), Tennessee Department of Environment and Conservation (TDEC), and Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP), no federally-listed species protected under the Endangered Species Act (ESA) have been documented as occurring in Fayette County, Tennessee. Moreover, no federally-listed species have been documented within one mile of the project area.

[29] TDEC, Tennessee Storm Water Multi-Sector General Permit for Industrial Activities No., TNR050000 (NPDES), 40 C.F.R. § 122.26(b)(14)(viii).

4.12.7 State-Listed Species

No state-listed species have been documented within one mile of project area. Three state-listed species have been documented within four miles of the project area, but were not seen on-site during preliminary field surveys in April and June of 2009.

4.12.8 Invasive Species

NSR will adhere to the Guidelines of EO 13112 while constructing and maintaining the project in an attempt to control and prevent spread of invasive exotic species to project site. NSR will use invasive-free seed mixtures and native plant species to re-vegetate areas disturbed during contraction.

4.12.9 Wild & Scenic Rivers

No watercourses or rivers within the project site are listed on National Wild and Scenic Rivers System (NWSRS) or in Nationwide Inventory of Rivers for potential inclusion in NWSRS within project area. No watercourses or rivers within the project site are listed as an Exceptional Tennessee Waters (ETW) or Outstanding National Resource Waters (ONRW).

4.12.10 Permits

NSR will apply for and obtain the following state and Federal environmental permits for the Build Alternative 1:

(1) USACE Individual or Nationwide Permit for Impacts to Waters of the U.S. (including wetlands and aquatic resources).

(2) ARAP (TDEC) for Construction and Removal of Minor Road Crossings.

(3) ARAP (TDEC) General Permit for Minor Alterations to Wetlands.

(4) NPDES Stormwater Individual Permit for Construction.

4.13 Visual

There are no areas of high visual quality or visually sensitive resources in the Build Alternative 1 project area. The visual setting along SR-57 is already disrupted by commercial and industrial facilities. Therefore, introducing the commercial facility, railroad track, and SR-57 overpass into the viewshed will have no visual affect. The facility lighting would be shielded directional lighting on 70’ tall poles vs. NSR standard 100’ tall poles. The average light levels for majority of facility would be less than 2 foot candles. The earthen berms along parts of western and east sides of facility along with section on west side of lead tracks will reduce visual impacts. NSR will plant grasses, native flora, and evergreen trees in the area outside of facility.

Based on the planned vegetation/berms, the existing contaminated viewshed, and the directional lighting, Build Alternative 1 will not have significant impact to visual resources.

4.14 Energy

Energy consumption will result from activities related to site preparation and construction of the facility, lead tracks, SR-57 overpass, the loop track, and Industrial Road. It is anticipated that the main energy source for these activities will be diesel fuel. These impacts are temporary and are not considered significant.

Energy consumption will occur related to the manufacturing and transport of the construction components and by the heavy equipment used for the facility. Operations will require diesel fuel and electricity. The implementation of energy conservation measures and use of energy efficient technologies will reduce the operational energy impacts. To increase energy efficiency, the administrative building is being designed for submission as a LEED Green Building Rating System certified building.

Freight trains, switch engines, and trucks use diesel fuel as their energy source. The fuel savings will be realized in the long term due to higher efficiencies in the movement of freight on rail versus highway trucks. Nationwide, 23.8 million gallons of fuel are estimated to be saved on an annual basis from the projected conversion of 187,000 truckloads from highway to rail between the new Memphis Regional IMF and Northeastern regions of the U.S.

Based on the transportation efficiencies inherent with rail versus road transportation, Build Alternative 1 will not have a significant impact to energy consumption.

4.15 Hazardous Materials

4.15.1 No Hazardous Material Sites

A Phase I Environmental Site Assessment was conducted for the project site in 2009 in general accordance with Guidance Document E-1527-05 per the American Society for Testing and Materials International (ASTM), *Standards on Environmental Site Assessments for Commercial Real Estate*. The resulting Environmental Data Report did not identify any potential hazardous materials or petroleum contamination sites within the proposed project corridor that are listed in Federal or State databases.

One National Priorities List (NPL) site, Ross Metals, was identified approximately 0.8 miles east-northeast of the Memphis Regional IMF site. It received spent lead acid batteries, lead oxide, scrap metal, and other lead waste and material. EPA conducted a removal option at the site. The Ross Metals property is not anticipated to have caused a recognized environmental condition on Build Alternative 1 site due to its distance away and the anticipated groundwater flow direction away from the Ross Metals site toward the Wolf River.

4.15.2 Potential Hazardous Material

Examples of commodities in the container and trailer shipments transferred between trucks and trains at the IMFs include: electronics, mail, toys, paper products, clothes, appliances, textiles, and auto parts. Only 3 to 4 percent of the intermodal shipments currently transported by NSR contain commodities that are considered hazardous materials. Certain commodities are prohibited from being transported through an IMF, such as toxic inhalation hazards (e.g., chlorine gas), radioactive materials, asbestos and explosive materials.

During the period 2004 through 2009, NSR intermodal transported 16,070,989 intermodal units. During that same time there were 25 spills from intermodal units inside IMFs or 0.000156% for each shipment. Of these 25 spills, 17 were one gallon or less in size and only one spill was over 25 gallons. NSR owns and operates 27 different intermodal facilities.

IMF personnel are trained and will take immediate action upon noticing a spill and have contact information to bring in specialized vendors to contain and remove any leaked material. NSR will design the IMF with a shutoff valve in the drainage system to ensure that any leaked material does not leave the facility.

The operation of the Memphis Regional IMF will utilize small amounts of materials considered hazardous, primarily fueling and lubrication materials for on-site equipment. Maintenance and fueling activities from IMF equipment will occur within the maintenance pad area. Seven (7) above ground storage tanks (ASTs) ranging in size from 300 to 3,000 gallons will be included in this area. In accordance with the Spill Prevention, Control and Countermeasures Program (SPCCP) developed by EPA, facility drainage is designed to capture and contain any releases. Additionally, the stormwater from the maintenance pad will be treated with an oil-water separator. The pollutants will be disposed of through the Rossville sewer system. The remaining stormwater will discharge into a Bio-Treatment Pond.

Based on the facility design and intermodal operational restrictions, Build Alternative 1 will not have a significant impact to hazardous materials.

4.16 Pedestrian and Bicycle

No bicycle paths or sidewalks are within the Build Alternative 1 project area.

4.17 Construction

Construction of the Memphis Regional IMF is expected to have some impacts, though not significant ones, including: utility relocations, construction-related traffic, access to roads and properties, noise, and air quality. These impacts will generally be temporary in nature but could affect local residents, businesses and travelers. Proper planning and implementation of BMPs should help alleviate these impacts or minimize air/noise and sedimentation/ erosion impacts.

Based on the temporary nature of these impacts, environmental permits, and the planned BMPs, Build Alternative 1 will have less than significant impact to the environment during construction.

4.18 Primary Benefits and Impacts

The primary beneficial effects of Build Alternative 1 (Preferred Alternative) include:

- Meets the current and future demand for intermodal (rail/truck) transportation in the Memphis region through expanded capacity, consistent with the project's purpose and need.
- Improves efficiency in transporting freight by slowing the increase in truck traffic and associated congestion and emissions between the eastern U.S. and

Memphis by diverting an estimated 186 million loaded truck vehicle miles per year from highways between Memphis and the Northeast.[30]

- Creates approximately 140 new full-time jobs directly associated with the operation of the IMF plus temporary construction jobs to build the IMF.
- Produces cumulative economic impact of $2.7 billion and 6,186 new, saved, or benefited jobs by 2020 in the Memphis Area.[31]
- Leads to an estimated annual savings of up to 23.8 million gallons of fuel due to intermodal transportation mode.[32]
- Produces additional annual benefits, including reduction of costs for pavement maintenance ($16.1 million); for highway delays ($81.4 million); from fuel consumption and emissions ($20.9 million); and for highway crashes and fatalities ($20.7 million).[33]

The primary impacts of Preferred Alternative include:

- As a direct impact of the project, traffic is expected to increase in the vicinity of the IMF's entrance on US Hwy 72. However, MDOT plans to widen US Hwy 72 to a four-lane highway for its length in Mississippi starting in 2012.[34] The level of service for the current 2-lane section of US Hwy 72 would be LOS D without this widening. With the MDOT planned widening of US Hwy 72, this would improve to LOS C, an acceptable Level of Service (LOS).[35] In order to address the expected operational impacts of the Memphis Regional IMF and provide safe traffic operations, changes are needed to the configuration of the planned 4-lane US Hwy 72 at Industrial Road. The private Developer will make these project-required improvements in conjunction with a MDOT HOP.
- Based on the analysis completed, only a minor increase in emissions of criteria pollutants and Mobile Source Air Toxics (MSATs) are expected. They are within the EPA limits.
- Minor noise impacts predicted for 1 affected site with 3 residents.
- Converting land use from agricultural to industrial within Rossville Urban Growth Boundary in an area zoned industrial within the project area.
- Maximum predicted stream and wetland impacts include: 5,352 linear feet of streams, 10 acres of ponds, and 7.31 acres of wetlands. NSR will minimize these impacts during design and mitigate as required by regulatory agencies. The impacts will not result in aggregate significant impacts to wetlands or water resources within the project area.

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[30] *Analysis of Truck to Rail Diversion Benefits – Memphis,* Cambridge Systematics, Inc., January 20, 2010.

[31] *Proposed Intermodal Facilities, Fayette County, TN, Twelve-Year Impact Analysis: Analysis of Economic, Employment and Tax Revenue* Impacts 2009-02020, Insight Research Corporation, May 27, 2009.

[32] *Analysis of Truck to Rail Diversion Benefits – Memphis,* Cambridge Systematics, Inc., January 20, 2010.

[33] Cambridge Systematics, Inc., January 20, 2010.

[34] MDOT Planning Division, "Vision 21 map," 2002
http://www.gomdot.com/Divisions/IntermodalPlanning/Resources/Maps/pdf/Vision21.pdf.

[35] Conference call with TDOT, MDOT, TN FHWA, NSR Consultants on Monday, April 12, 2010.

5 Public and Agency Involvement

5.1 Agency Involvement

5.1.1 NEPA Participating Agencies

TDOT distributed a Coordination Package to agencies, organizations and interested parties on September 11, 2009. Agencies and organizations receiving the coordination package are listed below. Agencies or organizations with a (C) and/or (P) by their names indicate whether the group is a cooperating (C) or participating (P) organization in the NEPA process for the project. Agencies without a designation by their names did not elect to participate in the NEPA process.

Federal Agencies

- U.S. Department of Transportation Federal Highway Administration (C) (P)
- U.S. Army Corps of Engineers (USACE) (C) (P)
- Water Resources Division, U.S. Department of the Interior (DOI) (P)
- U.S. Fish and Wildlife Service (FWS) (P)
- Natural Resources Conservation Services (NRCS), U.S. Department of Agriculture (P)
- Wetland Reserve Program Coordinator, U.S. Department of Agriculture (USDA) (P)
- Tennessee Valley Authority (TVA) (P)
- Environmental Protection Agency (EPA) Region 4 (P)
- Federal Emergency Management Agency (FEMA)
- Office of Environmental Policy and Compliance, DOI
- U.S. Geologic Survey (USGS), DOI
- Office of Surface Mining, DOI
- National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce (DOC)
- Federal Aviation Administration (FAA), Memphis Airport District Office

State Agencies

- Mississippi Department of Transportation (C) (P)
- Tennessee Department of Environment and Conservation (TDEC) (P)
- Tennessee Wildlife Resource Agency (TWRA) (P)
- Tennessee Department of Agriculture (P)
- Tennessee State Historic Preservation Office (SHPO)
- Tennessee Department of Education
- Mississippi State Historic Preservation Office (SHPO)

Local Agencies

- Department of Economic & Community Development, Local Planning Assistance Office, West Tennessee Region (P)

- West Tennessee Regional Planning Office (RPO) (P)
- Regional Planning Office (RPO) Southwest Tennessee Development District (P)
- RPO, Memphis Area Association of Governments (P)
- Memphis Metropolitan Planning Office (MPO), Memphis-Shelby County Department of Regional Services (P)
- Fayette County (P)
- Fayette County Planning and Development Office (P)
- Fayette County Chamber of Commerce (P)
- Town of Rossville (P)
- City of Piperton (P)
- Town of Collierville (P)

- **Organizations:**
  - Tennessee Trails Association
  - Tennessee Chapter of the Sierra Club
  - Chickasaw Group, Sierra Club (Memphis Area)
  - The Nature Conservancy
  - Tennessee Wildlife Federation
  - Tennessee Environmental Council
  - Southeast Rivers and Streams Projects, World Wildlife Fund

Section 106 Consulting Parties:

- Town of Rossville
- Fayette County
- Alabama-Quassarte Tribal Town
- The Chickasaw Nation
- Choctaw Nation of Oklahoma
- Eastern Band of Cherokee Indians
- Eastern Shawnee Tribe of Oklahoma
- Jena Band of Choctaw Indians
- Kialegee Tribal Town
- Mississippi Band of Choctaw Indians
- Muscogee (Creek) Nation
- Poarch Band of Creek Indians
- Quapaw Tribe of Oklahoma
- Shawnee Tribe
- Thlopthlocco Tribal Town

- Tunica-Biloxi Indians of Louisiana, Inc
- United Keetoowah Band of Cherokee Indians

Table 4-1 of the July 8 EA summarizes comments received from the agencies before starting the Tennessee Environmental Streamlining Agreement (TESA) Process.

5.1.2 TESA Process

The Tennessee Environmental Streamlining Agreement (TESA) is a cooperative agreement between TDOT, FHWA, various resource and regulatory agencies, and Metropolitan Planning Organizations within the State of Tennessee. TESA sets forth the responsibilities of the signatory agencies relative to the priority review of transportation projects. TESA has the goal of achieving timely planning, development, design and implementation of adequate, safe and economical transportation improvements while also assuring such planning, development, design and implementation is sensitive to the protection and improvement of the resources for which each agency is responsible under Federal or state statute and regulation. TESA establishes "one decision-making process" to identify and address agency issues at four (4) key points, termed concurrence points, during the planning and NEPA process for transportation projects.

5.1.2.1 TESA Concurrence Point #1/#2

TDOT distributed the combined TESA Concurrence Point #1 (*Purpose & Need*) and TESA Concurrence Point #2 (*Proposed Actions & Alternatives*) package to all TESA-participating/cooperating agencies with the lead agencies (FHWA/TDOT) requesting formal concurrence for the Memphis Regional IMF. All participating and cooperating TESA agencies concurred with the combined TESA Concurrence Point #1 (*Purpose & Need)* and TESA Concurrence Point #2 (*Proposed Action and Alternatives)* sections of the draft EA. A copy of agency correspondence and a summary of comments received from the reviewing agencies are included in the Summary of Comments for Concurrence Point #1 and #2 document, dated January 2010, included as Appendix A to this FONSI.

5.1.2.2 TESA Concurrence Point #3

TDOT distributed the TESA Concurrence Point #3 (*Preliminary EA package*) to the TESA agencies and other NEPA participating and cooperating agencies listed in Appendix B, with a request for formal concurrence by March 25, 2010. A summary of comments received from the reviewing agencies is included in the Summary of Comment for Concurrence Point #3 document, dated May 2010, included as Appendix B to this FONSI.

5.1.2.3 TESA Concurrence Point #4

TDOT distributed the TESA Concurrence Point #4 (*Preferred Alternative and Preliminary Mitigation*) to the TESA agencies listed in Appendix C. A courtesy copy was provided to Environmental Division Administrator, Mississippi Department of Transportation (MDOT).

All agencies concurred on TESA Concurrence Point #4 (*Preferred Alternative and Preliminary Mitigation*) for the Memphis Regional IMF. MDOT provided an email response and EPA provided advisory comments with their concurrence signature page. A summary of comments received from the reviewing agencies is included in the Summary of Comment for Concurrence Point #4 document, dated October 2010, included as Appendix C to this FONSI.

5.1.3 Comments Received on the Environmental Assessment

Outside of the TESA process, the only comments received from an agency on the July 8 EA were from the EPA. The EPA letter dated August 20, 2010, indicated that they remain concerned regarding the project's possible impacts to air quality, groundwater, and floodplain hydrology. EPA, along with other participating agencies, was furnished the July 8 EA electronically on July 9, 2010. In addition, EPA, along with the coordinating agencies, was provided an opportunity to review the April 2010 version of the draft EA. Several of the comments in EPA's August 20, 2010 letter appeared not to have been updated from their previous reviews of the February 2010 version of the draft EA. The July 8 EA fully addressed the items raised by the EPA in their March 11 Concurrence Point #3 letter, May 6 email, and August 2010 letter. In the August letter, EPA highlighted concerns about the mobile source air toxics (MSATs), the Memphis Sand Aquifer, and uncertainty as to whether NSR will comply with state and local floodplain laws and ordinances. These comments are recorded in Table 5 with the responses. A copy of the comment letter and Table 5 are included as Appendix D to this FONSI. As part of the TESA process, EPA concurred with all four concurrence points. EPA's final comments are included in the Summary of Comment for Concurrence Point #4 document, dated October 2010, included as Appendix C to this FONSI.

5.2 Circulation of the Environmental Assessment

The EA was approved on July 8, 2010 by the FRA. Notices of Availability were published in three (3) newspapers covering the region in the project vicinity: *The Commercial Appeal* with Memphis area distribution, *The Fayette Falcon* with Fayette County TN distribution and *The Southern Reporter* with Marshall County MS distribution. Local agencies were provided with hard copies of the July 8 EA. An electronic link to the July 8 EA was sent to all TESA and participating/cooperating agencies. The location of the July 8 EA was mailed to everyone who attended the public meeting, requested information about the project, and lived in the local area.

Copies of the July 8 EA were available for inspection at:

- TDOT, Environmental Division, Nashville, TN
- MDOT District 2, Batesville, MS
- MDOT District 2, Holly Springs Project Office, Holly Springs, MS
- Collierville Public Library, Collierville, TN
- Ruth B. French Library, Byhalia, MS
- Rossville City Hall, Rossville, TN

5.3 Public Involvement

5.3.1 Public Informational Meeting

To provide information regarding the proposed Memphis Regional IMF and solicit public input, TDOT held a public informational meeting in Piperton, Fayette County, Tennessee, on October 22, 2009, in the project area. During the meeting, TDOT and NSR made formal presentations; TDOT solicited comments during the question-and-answer period following the presentations; and NSR provided informational displays and staff to answer questions before and after the presentation. TDOT encouraged meeting attendees to record their comments with the court reporter present at the meeting, and/or to provide written comments using a comment-form either at the meeting or within twenty-one days following the meeting. Fifty-eight citizens signed in at the public informational meeting. A total of fifty-one comments were provided by twenty-seven individuals and one comment card was signed by eleven citizens living on Neville Road. A consolidated summary of the public comments received and responses is in the July 8 EA section 4.3.

5.3.2 Public Hearing

To obtain public input on the Memphis Regional IMF project and the July 8 EA, TDOT held a public hearing in Collierville, Tennessee, on August 2, 2010. During the hearing, TDOT and NSR made formal presentations and TDOT solicited comments during the question-and-answer period following the presentations. TDOT encouraged hearing attendees to record their comments with the court reporter present at the hearing, and/or to provide written comments using a comment card either at the hearing or within twenty-one days following the hearing. Ninety-one citizens signed in at the public hearing. Thirty-four different individuals or groups provided a total of forty-two comments. The notice of the public hearing, correspondence relating to the public hearing and availability of the July 8 EA, materials provided at the public hearing, including the presentation materials and displays, as well as copies of the comment cards, a transcript of the public hearing and a summary of the public comments received and responses are included as Appendix E to this FONSI.

5.3.3 Summary of Public Hearing Comments

Of the fourteen individuals who spoke at the public hearing, eleven expressed concerns or asked questions about the project and three expressed support of the project. On the comment cards, seventeen of the nineteen noted what they liked or disliked about the No-Build Alternative and/or Build Alternative 1, eleven participants commented in favor of the No-Build Alternative and four commented in favor of Build Alternative 1, while one provided both pros and cons for each alternative, one commented on Build Alternative 1 without indicating they were in favor of that alternative, and two did not comment in this section.

Below is a summary of comments received at the public hearing:

- Support Build Alternative 1.
- Requests for Environmental Impact Statement (EIS) vs. Environmental Assessment (EA).

- Concerns about NSR's knowledge of and method for protecting the aquifer.
- Concerns about traffic both directly related to the IMF and related to future development.
- Concerns about hazardous materials transported through the facility.

On the comment cards, participants were asked if there were any issues or concerns not addressed in the July 8 EA and if so, what was not addressed. The comments that were received mirrored the areas of concern expressed at the public hearing. All comments received are categorized in Table 4 below and summarized in Table 6 in Appendix E of this FONSI.

Table 4 groups the various public comments into general categories aligned with the July 8 EA topics.

Table 4: Public Comments Grouped by July 8 EA Topics

Applicable July 8 EA Section	Comment Category	Number of Comments Made
1	Operations	1
2	Alternatives*	20
3.1	Land use	7
3.2	Farmland	2
3.3	Traffic	32
3.4	Social**	15
3.6	Economy	1
3.7	Air	9
3.8	Noise	8
3.9	Cultural/Historic	1
3.12	Natural Resources***	45
3.13	Soils	1
3.14	Visual	4
3.16	Hazardous Material	20
3.18	Indirect/Cumulative	8
3.19	Construction	8
4	Public Involvement	2
NA	NEPA Evaluation	11
NA	Other	7
	TOTAL	202

Table 4: Public Comments Grouped by July 8 EA Topics

Applicable July 8 EA Section	Comment Category	Number of Comments Made
Notes:		
* Under 2 Alternatives, comments were: 11 in favor of No-Build Alternative 9 in favor of Build Alternative 1	** Under 3.4 Social, comments were: 9 about property values/community impacts 6 about taxes and/or taxpayer services	
*** Under 3.12 Natural Resources, 3.12 – General: 1 3.12.2 – Water Quality: 5 3.12.3 – Wetland: 1 3.12.6 – Aquifer: 31	Comments were further broken down to : 3.12.7 – Stormwater: 3 3.12.8 – Threatened and Endangered Species: 1 3.12.12 – Environmental Permit: 3	

6 Revisions to Environmental Assessment

Numerous changes were made to the draft EA based on the agency comments received (Appendices A and B of this FONSI) before the document was signed by FRA. Based on comments received after the document was signed, the following revisions are made to the July 8 EA:

- The July 8 EA incorrectly stated the number of planned above ground storage tanks (AST).
  - On page 3-107: Included in this area would be *seven (7)* ASTs ranging in size from 300 to 3,000 gallons.
  - On Page 3-133: Included in this area would be *seven (7)* ASTs ranging in size from 300 to 3,000 gallons. The larger AST would be for storage of diesel fuel. The other *six (6)* ASTs would hold gasoline, 40W motor oil, anti freeze, transmission oil, used oil, and hydraulic oil.
- At a follow-up meeting on July 27, 2010, the Ground Water Institute (GWI) stated that it could not verify the estimated percentage of aquifer recharge along the streams and therefore, the specific figure needed to be removed from the text.
  - On Page 3-108: According to the University of Memphis, Groundwater Institute, *a majority* of the recharge of the aquifer occurs through the area's streams.

7 Basis for Finding of No Significant Impact

Based upon a detailed study of the proposed project as documented in the July 8 EA, comments received from Federal, state, and local agencies, and public comments, it is the finding of the FHWA and the FRA that this project will not have a significant adverse impact upon the human or natural environment.

The construction and operation of the Memphis Regional IMF will increase freight transportation capacity in the Memphis, Tennessee, region and meet current and future demands for intermodal (rail/truck) transportation in the Memphis region through

expanded capacity. Completion of the project will improve efficiency in transporting freight by slowing the increase in truck traffic and associated congestion and emissions between the eastern U.S. and Memphis reducing pavement maintenance, highway delays, fuel consumption and emissions, and highway crashes and fatalities.[36] In addition, the project will create, save, and benefit area jobs.

As outlined in Section 4, no significant impacts to natural, ecological, cultural, or scenic resources are anticipated. The project will result in the conversion of farmland to industrial use. There will be minor impacts from noise and emissions. The project will be designed to minimize impacts to floodplains, stormwater, and aquifer/groundwater. The project will have impacts to wetlands and streams, which NSR will minimize and mitigate as described in the Project Commitments Section at the beginning of this FONSI. As detailed above and in the July 8 EA, potential adverse impacts have been avoided and/or minimized using avoidance, minimization, and mitigation techniques, and multiple modifications to the design of the Memphis Regional IMF.

In consideration of the above evaluation, it was determined that a FONSI is appropriate for this proposed project. Therefore, neither an EIS nor further environmental analysis is required.

[36] *Analysis of Truck to Rail Diversion Benefits – Memphis,* Cambridge Systematics, Inc., January 20, 2010 and the EA, Section 3.6 Economic Impact.

Appendix A - Summary of Comments for Concurrence Points #1 and #2

Appendix B - Summary of Comment for Concurrence Point #3

Appendix C - Summary of Comment for Concurrence Point #4

Appendix D – Agency Comments to July 8 EA

Table 5 lists the comments provide by EPA on August 20, 2010 and the responses to the comments.

Table 5: EPA's Comments to July 8 EA / *Responses*

1. NEPA Level of Analysis: As stated in previous advisory comments (Concurrence Point 1, 2 & 3, dated October 23, 2009), EPA remains concerned regarding the level of analysis of the NEPA document. Given the mounting public opposition (reference public comments) to this project and the likelihood of impacts to the groundwater, floodplain, wetlands, and air quality, TDOT/FRA should thoughtfully consider the significance of environmental and socioeconomic impacts related to this project. The scope and size of the proposed project should be commensurate with the level of NEPA analysis. *FRA, FHWA, and TDOT disagree that there is mounting public opposition to the project. Based upon public meetings and the amount and nature of public comment, public opposition has actually diminished. Approximately 58 citizens attended the Public Meeting held on October 22, 2009. Twenty-seven individuals provided comments to the project including 4 in support of the project. During the Public Hearing held August 2, 2010, approximately 91 citizens attended. Thirty-four citizens or groups provided comments to the project, including 7 citizens or groups providing comments in support of the project. TDOT, FHWA, and FRA have thoroughly considered the potential impacts to the environment from the proposed project.* *FRA, FHWA, and TDOT agree that the level of analysis should be commensurate with the level of impact and here the Environmental Assessment (EA) level of analysis is appropriate. Based upon FRA, FHWA, and TDOT's preliminary assessment of impact, applying criteria from the Council on Environmental Quality (CEQ), EPA, FHWA and FRA regulations and guidance and including recent environmental assessment documents prepared by these Federal agencies as well as applicable legal criteria, TDOT, FRA and FHWA have determined an EA is the appropriate documentation for the Memphis Regional IMF. The analysis contained in Section 3 of the July 8, 2010 EA clearly demonstrates that the project will not have significant effects and complies with all applicable EPA requirements. In determining that an EA is appropriate, the agencies conducted a direct, indirect, and cumulative impact analysis in accordance with regulations and guidance to ensure a hard look at project impacts was included. We note also that development of an EA for this project is not only consistent with regulations, guidance, and case law, but is consistent with NEPA documentation level applied to other project of similar scope and impact nationally and within this region. In accordance with the Executive Branch guidance with respect to projects under the American Recovery and Reinvestment Act (ARRA), full NEPA analysis and provisions were applied. The assessment is based upon substantial governmental and public review and comment As noted below, a conclusion that there is significant impact cannot be supported, and several mitigation measures have been proposed for the impacts identified the EA. Accordingly, an EIS is not required or appropriate.*
2. Areas of Controversy and Unresolved Issues: On page iv, TDOT states, "There are no major areas of controversy or any substantial unresolved issues related to the proposed Memphis Regional IMF project." EPA disagrees with this assertion due to the public's concerns regarding the possible impacts of this project as well as concerns outlined in the Town of Collierville's October 29, 2009 letter and numerous negative comments from the public during the October 22, 2009 public meeting. EPA recommends that TDOT recognize and address the publics and Town of Collierville's concerns within this section. *It appears that this comment is based on the previous version of the EA. The July 8, 2010 EA included revisions to address a substantially similar comment in EPA's March 24, 2010 Comments.*

Table 5: EPA's Comments to July 8 EA / *Responses*

FRA and TDOT recognized and addressed the public's and Collierville's concerns throughout the July 8, 2010 signed EA. In addition, a meeting was held with the Town of Collierville on March 17, 2010 and both the Town of Collierville and the public comments were addressed in Concurrence Point #3. As noted below, public opposition has decreased as the studies and information regarding impacts have been developed and disseminated to the public and governmental agencies. The nature of the issues raised in recent public meetings and level of comment indicates lessening concern regarding this project. *As part of the TESA process, the agency comments were addressed. There is public concern about protection of the Memphis Sand aquifer which outcrops in Fayette County and the additional traffic that will be placed on US Hwy 72. These issues are adequately addressed in various sections of the Draft EA in Chapter 3. As part of addressing comments, additional discussion was added to the Executive Summary on page iv to mention the public and agency concerns.*
3. Hydrological Impacts: TDOT/NSR estimates that land impacts would include 76 acres for the lead tracks; 232 acres for concrete pavement, which would be placed over the re-charge area for the Memphis Sands Aquifer. 3-8 acres of wetlands would be impacted as well as 5,000 linear feet of stream. Also, the project footprint would cover at least 1 acre of floodplains. The scale and scope of the proposed project is not commensurate with the hydrological studies within the EA. Clearly, the entire hydrologic regime of this area will be impacted. These impacts could exacerbate flooding, affect groundwater re-charge and impact private wells. The current analysis lacks sufficient hydrologic studies to predict possible impacts to the hydrology of the local community and natural habitat. EPA recommends that TDOT/NSR conduct a more comprehensive hydrological study of the effects of this project on the hydrological regime of the local area. *The July 8, 2010 EA analyzes hydrologic impacts, impacts to floodplains, wetlands, and the Memphis Sand Aquifer. As stated in Table 3-23, with respect to floodplains, "*Zone A – 32 acres within project boundary; less than 1 acre of impact to be minimized in design. Zone AE – 4 acres within project boundary; 0 acre of impact*." The project was specifically designed to minimize and avoid impacts to floodplains, wetlands and other sensitive aquatic areas such as streams and as EPA is aware the project has received a provisional Clean Water Act Section 404 permit, which includes mitigation in accordance with EPA and Corps mitigation regulations. Impacts to floodplains are specifically included in the Corps permitting procedures and review. Section 3.12 of the July 8, 2010 EA states: "*For encroachment in Zones AE or A, a professional engineer would certify that these encroachments would not increase the water surface elevation of the base flood more than one foot at any point within the community*." As the design has progressed, a No Rise certification has been issued for the proposed project. Accordingly, floodplains impacts are minor, if any, and have been addressed by applicable permitting entities.* *Water wells and potential impacts are addressed in EA Sections 3.12 and 3.18. The IMF will not affect area water wells or quality of drinking water. Residential water wells are present around the project site along Knox Road, Neville Road, and SR-57. As reported by TDEC Ground Water Management Section, these wells are relatively shallow on the order of 90-150' deep. Based on topographic relief in the area and on the planned elevation of the facility, the screened well intervals should be 80 to 150' below the planned IMF elevation.* *The Town of Rossville obtains its water from three groundwater wells ranging from 90-102' deep. The Town of Collierville's water supply is taken from eleven deep wells pumping from 350' and 600'. Piperton obtains its water from Collierville. Rossville and Collierville both have a Well-Head Protection Program and Well-Head Protection Plan. The maximum Wellhead Protection zone per*

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TN Public Water Supply Rule (1200-5-1-.34) is 750', which does not extend into the footprint of the proposed IMF. *As discussed in additional detail in Section 3.12.6 and Section 3.13, NSR has proposed construction techniques that would provide protection to the underground water sources during construction and operation of the facility. Federal hazardous materials transportation laws and regulations limit freight that can and cannot be shipped through intermodal service. As discussed in additional detail in Section 3.16, NSR has an extensive site specific spill prevention program and its record of intermodal shipment spills demonstrate that such spills are extremely rare and typically involve very small quantities.*
4. Flood Plain Impacts, **a. Direct Impacts** 1. On page 3-70, 3.12.5 Floodplain Impacts TDOT states that the, "NSR sited the facility outside of the Wolf River floodplain ... ". Although the facility might not be in the floodplain, how will the storm water discharge affect the hydrology of the flood plain? *It appears that this comment is based on the previous version of the EA. The language referenced above is now part of 3.12.5 and included on page 3-99. The July 8, 2010 EA included revisions to address the identical comment in EPA's March 24, 2010 Comments, as well as other comments received from agencies and the public. Sections 3.12.5 and 3.12.7 were revised to incorporate additional information regarding potential effects of the site on flood plain hydrology such as the percentage of the site within drainage area and the post-construction stormwater discharge rate, as well as information related to the proposed stormwater control system that would provide storage to allow discharges to mimic predevelopment hydrology, minimize initial flows following rain events and decrease resultant peak flows.*
#4. Flood Plain Impacts, a. Direct Impacts 2. Also, on page 3-71, TDOT states, "NSR will voluntarily comply with Fayette County floodplain management regulations and EO 11988, as long as such regulations and the EO do not prove to unduly burdensome or unreasonably interfere with timely construction." TDOT is implying that NSR might not comply with local and applicable flood plain management laws. During the recent floods in metro Atlanta, the NSR Austell Georgia facility has been harshly criticized by the public and local government for possibly contributing to the flooding of local homes. Given the large impervious surface footprint of this facility and recent controversy associated the NSR Austell, Georgia facility, EPA recommends that NSR and TDOT fully comply with all applicable (state and local) flood plain regulations. *It appears that this comment is based on the previous version of the EA. The July 8, 2010 EA included revisions to address the identical comment in EPA's March 24, 2010 Comments.* *Consistent with local ordinances, the facility has been designed to ensure that pre- and post-hydrology, including stormwater discharge, will not change significantly due to the project. NSR has incorporated the construction and maintenance practices outlined in the local floodplain practices, to the extent practicable, and do not anticipate floodplain impacts. For this project, NSR has incorporated all construction and maintenance practices, aside from the permitting and approval requirements, in Fayette County's floodplain management regulations.* *The recent flooding in metro Atlanta was part of a 500-year flood event. Interstate 285 was underwater at some locations and flooding in response to this exceptionally rare level of rainfall was rampant across metro Atlanta. During the flooding, water from the local area back-flowed*

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onto the Austell Facility. There is no indication that the design of the facility or compliance with floodplain management regulations resulted in the flooding of local homes, but rather local flooding was the result of the 500-year storm event.
#4, Flood Plain Impacts, a. Direct Impacts 3. The flood plain analysis within the Draft EA isn't commensurate with the scale and scope of the proposed project. EPA recommends that TDOT conduct further analysis to ensure that the facility will not negatively impact the flood plain habitat and local residents and businesses. *It appears that this comment is based on the previous version of the EA. The July 8, 2010 EA included revisions to address the identical comment in EPA's March 24, 2010 Comments, as well as other comments received from agencies and the public. Sections 3.12.5, 3.12.7, 3.18.6.2 and 3.18.7.2 were revised to incorporate additional floodplain analysis. In addition, as part of the design process, NSR will complete a review of the hydraulic and hydraulic analysis of the affect of the project on the floodplain and the local areas.*
#4, Flood Plain Impacts b. **Indirect and Cumulative Impacts to Floodplain**: On page 3-183 there is a discussion regarding the indirect and cumulative impacts of the floodplain. On page 3-100, NSR states, "NSR has adopted the construction and maintenance practices outlined in the local floodplain practices, to the extent practicable, and do not anticipate floodplain impacts." NSR goes on to state, "While NSR plans to voluntarily comply with such local criteria whenever possible, there may be instances where those criteria are incompatible with rail operations." In the footnotes on page 3-100, NSR notes "... *in recognition of the importance of rail transportation in interstate commerce, Congress has enacted legislation providing that federally regulate railroads operating in the interstate commerce are not subject to otherwise applicable local and state laws .... This includes local planning, zoning and similar laws and ordinances. However, as discussed in this section NSR will adopt local floodplain impact practices for this project."* NSR is ambiguous as to whether or not they intend to adopt local floodplain ordinances. NSR has implied that they would disregard Fayette County's floodplain ordnances and Executive Order 11988 should the ordnance or EO interfere in meeting rail operations. What would be the cumulative impact of TDOT and NSR disregarding the local ordinances and EO? Also, the discussion doesn't include other proposed industrial developments (Industrial Road and Chickasaw Industrial Park) that will increase impervious surfaces, which could lead to more stormwater run-off and possible increases in flooding. In metro Atlanta, the NSR Austell IMF is currently being criticized by the local community and political officials for increasing the flooding of the local community. EPA recommends that TDOT and NSR conduct a more thorough engineering analysis regarding the indirect and cumulative impacts of the floodplain hydrology. Also, since this is a federally funded project, EPA recommends that TDOT and NSR fully comply with all Federal, State and local ordinances. *As discussed in response to comment 4.a.2 above, the discussion of floodplain impacts in the July 8, 2010 EA was revised. NSR will comply with all applicable Federal, state and local regulations. Section 3.18.7 of the July 8, 2010 EA includes analysis of the potential indirect and cumulative floodplain impacts associated with the Memphis Regional IMF, including referencing the local floodplain ordinances and covenants associated with development at Chickasaw Trails Industrial Park on page 3-184. In addition, as provided in response to comment 2 above, the flooding in Atlanta in 2009 was due to a 500-year flood event. The U.S. Geological Survey*

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measured the greatest flow ever recorded (31,500 cubic feet per second) on Sweetwater Creek near Austell, Georgia. During the flooding, water from the local area back-flowed onto the Austell Facility. There is no indication that the design of the facility or compliance with floodplain management regulations resulted in the flooding of local homes, but rather local flooding was the result of the 500-year storm event.
5. Traffic Analysis: In Section 3.3.3.2 Background Conditions (page 3-16), TDOT/NSR assumes that MDOT's proposed improvements to SR 72 (improving road from a 2 lane to a 4 lane) will be funded and constructed. What would the level of service be without the construction of this 4 lane road? TDOT and NSR needs to fully evaluate the Level of Service of SR 72 without the construction of a 4-lane road and integrate the existing 2 lane facility within the background and future conditions traffic analysis. EPA recommends that TDOT/NSR include the existing 2 lane traffic data within the Background Section (on page 3-6), within Table 3-3: Level of Service Background Conditions (2015 and 2032) (add another column), within Section 3.3.3.3 Future Conditions (on page 3-18 (and Table 3-5: Level of Service - Future Conditions (2015 and 2032)). *The Traffic Impact Study includes both 2-lane and 4-lane analysis of US Hwy 72. Based on MDOT's commitment to widen US Hwy 72, the 4-lane section of US Hwy 72 was discussed in the EA for year 2032. Traffic volumes on US Hwy 72 in the vicinity of the project site have decreased at a rate of approximately 1% per year over the past 5 years.[37] Nevertheless, the existing traffic volumes at the study intersections were increased initially by 1% per year to simulate the background growth.[38] The rate of increase was changed to 2.5% per year growth (as requested by MDOT).[39] Table 3-3 and Table 3-5 of the July 8, 2010 EA include both a 1% and a 2.5% background growth rate and analyze US Hwy 72 as a 2-lane road in 2009 and 2015 and as a 4-lane road in 2032. Based on the analysis provided in the Traffic Impact Study and Section 3.3.2 of the July 8, 2010 signed EA, US Hwy 72 would be at Level of Service (LOS) D in 2015 with a 2.5% background growth rate at 2-lanes. If the 1% growth rate is used, US Hwy 72 would be at LOS C in 2015 and LOS D in 2032. Since MDOT expressed that LOS D would be unacceptable, US Hwy 72 should be widened by MDOT prior to US Hwy 72 reaching LOS D, consistent with the Mississippi Statewide Transportation Improvement Plan (STIP) for 2012. Existing traffic date for US Hwy 72 as a 2-lane road was utilized as part of the background traffic, in addition to being utilized to project the 1% and 2.5% growth rates.* *MDOT plans to widen US Hwy 72 are discussed in the EA Section 3.18.2. Construction of US Hwy 72 from MS 302 to the TN State Line was programmed in the MS Statewide Transportation Improvement Plan (STIP) for 2012.[40] MDOT is in the process of updating its environmental documentation for widening their last section of US Hwy 72.* *As discussed in the EA Section 3.3, in anticipation of the planned widening of US Hwy 72 to four lanes in the vicinity of the project area, MDOT has requested that the design and construction of the proposed intersection of Industrial Road and US Hwy 72 include widening US Hwy 72 to four-lanes, with stub-outs to the east and west. Based on the Traffic Impact Study (on file with TDOT and MDOT) and as illustrated in the EA Figure 3-11, show what improvements are warranted at US Hwy 72 and Industrial Road. These improvements could be made by the private Developer in conjunction with the MDOT Highway Occupancy Permit (HOP): turn lane for right and turn lane for*

37 AADT volumes from two TDOT and two MDOT count stations.

38 November 2009 AECOM Traffic Study

39 During a phone call between AMEC and MDOT on April 13, 2010, MDOT said their normal planning growth rate for NEPA studies was 2.5% growth compounded annually.

40 Mississippi DOT 2010-2013 STIP, US 72 from FR 302 to Tennessee State Line, NEED 10 4752.

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left turning vehicles from Industrial Road; eastbound left turn lane on US Hwy 72; locate the intersection to provide adequate sight distance to the west and east; and acceleration and deceleration lanes on the westbound section of US Hwy 72.
6. Indirect and Cumulative Impacts to Social and Community Resources: a. There is very little discussion regarding the IMF impacts on the local communities within Mississippi. Mount Pleasant, MS, is the closest community to the IMF freight truck entrance, but there is no mention of this community and the direct, indirect or cumulative impacts to this community. EPA recommends that TDOT and NSR better evaluate the impacts to Mississippi communities especially Mount Pleasant. *It appears that this comment is based on the previous version of the EA. The July 8, 2010 EA included revisions to address the identical comment in EPA's March 24, 2010 Comments. Section 3.18.4 was revised to incorporate discussion of potential indirect and cumulative impacts to Mt. Pleasant. Additionally, Sections 3.4, 3.5, 3.6, 3.18.3 and 3.18.4 of the July 8, 2010 EA discuss potential direct, indirect and cumulative impacts to the social and community resources to areas in both Tennessee and Mississippi.* *Additional information was added to the EA Section 3.18.4 Economic Impacts starting on page 3-166 to discuss potential impacts of the IMF to the closest community in MS, which is Mt. Pleasant.*
#6. Indirect and Cumulative Impacts to Social and Community Resources: b. TDOT does not discuss the impacts of the IMF on property value. EPA recommends that TDOT discuss the possible impacts of the IMF on property value in both nearby communities in Mississippi and Tennessee. *It appears that this comment is based on the previous version of the EA. The July 8, 2010 EA included discussion of the impacts of the IMF on property value in Table 4-3, in response to public comments regarding property value.*
7. Public Outreach and Coordination in Mississippi. All of the public meetings are being held in Tennessee despite the fact that the sole freight truck entrance point is in Mississippi. The citizens of Mississippi will have the burden of dealing with increased truck traffic and congestion. What has NSR or TDOT done to coordinate and solicit input from the local residents in Mississippi? Specifically, has TDOT and NSR coordinated with the community leaders within Mount Pleasant, MS, which is located just outside of the IMF entrance? EPA recommends that TDOT conduct a public meeting in Mississippi and solicit input from residents and community leaders in Mount Pleasant. *Notice of the Public Hearing was published in both the Marshall County (Mississippi) and Fayette Co (Tennessee) local newspapers along with the Memphis Commercial Appeal. Individual copies of the notice were sent to surrounding residents, as well as citizens in both Tennessee and Mississippi expressing an interest in the project. The July 8, 2010 EA was available for public review in both Tennessee and Mississippi, including copies placed at the Byhalia, Mississippi public library and at the Batesville and Holly Springs MDOT offices. To ensure the input of nearby communities were considered, NSR met with officials from Marshall County on April 9, 2010 and conducted follow-up conference calls on April 12 and July 23, 2010 to discuss the project. In addition, both NSR and TDOT had meetings, conference calls and correspondence with MDOT to discuss the project and potential impacts in Mississippi.* *Of the 91 people who signed in at the Public Hearing, 69 noted their address as being in Tennessee, 20 as being in Mississippi and two as from outside of the area (Georgia and Texas). Of the 19 comment cards, 12 indicated that they work, live, or farm in Tennessee, 3 indicated that*

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they work, live, or farm in Mississippi, and 4 indicated they work, live, or farm in a mixture of Tennessee and Mississippi.

As an outreach to MS residents potentially impacted by the project, the Public Meeting notice was published in both the Marshall County (MS) and Fayette Co (TN) local newspapers along with the Memphis Commercial Appeal. Additionally mailers were sent out to surrounding residences.

A similar process occurred for announcement of the Public Hearing. The EA was made available for public review in the Byhalia (MS) and Collierville (TN) Public Libraries, Batesville and (location to be provided) MDOT offices, and Rossville (TN) City Hall.

Additional discussion was added to the EA Section 4.3 Public Involvement on page 4-12 to 14 to separate participation at the public meeting by MS vs.TN residences.

The public participation process is outlined in EA Section 4 and in the Coordination Plan on file with TDOT and distributed to local, state and Federal agencies with authority or responsibility over potentially impacted resources. In addition to the NEPA Public Information Meeting, local and governmental meetings were held to discuss the project. As identified in the EA Section 4, MDOT is a cooperating agency in the development of the EA. Due to scheduling conflicts MDOT and other agencies involved in the development of the assessment could not attend the Public Hearing; however, it is uncommon and often not feasible for each involved agency to attend all public meetings for a project. MDOT was at the Public Meeting in October 2009 and provided comments to the Draft EA as well as providing substantive guidance regarding the affect on MS resources including transportation.

8. Mobile Source Air Toxics (MSATs)

a. In Section 3.7.31 Mobile Source Air Toxics (MSATs), page 3-48, TDOT/NSR notes there are currently 55 residences within ~ mile of the project limits, and another 5 within ~ mile of the Industrial Road. TDOT/NSR goes on to state, "The operation of the Memphis Regional IMF will result in an overall reduction in air emissions on a large scale regional and national basis by significantly reducing highway congestion and truck traffic between the Memphis area and the northeast United States and other markets." Attempting to justify increases in local emissions based on reductions of MSATs regionally or nationally seems to miss the point that MSATs are a local phenomenon. MSATs have local impacts which are the reason that modeling the concentrations at nearby locations is important. Also, within the Air Quality Technical Report on page 27, TDOT/NSR states that, "the operation of the proposed Memphis Regional IMF would result in minor increase in MSAT emissions in Fayette County and Marshall County, and would correspond to a concurrent decrease in MSAT emissions...". For a project of this magnitude, the air toxics analysis should include a quantitative inventory of emissions by location; dispersion modeling to estimate air toxics concentrations in areas along and outside the footprint of the project; and a screening level risk assessment of the potential impacts of the emissions on nearby groups.

In response to agency and public comments, the July 8, 2010 EA included revisions to Section 3.7.3.1 to incorporate FHWA guidance language on MSAT and to clarify that the air analysis for Memphis Regional IMF was completed in compliance with the FHWA guidance, which requires qualitative analysis, does not require dispersion modeling and does not require screening level risk assessment. Air analysis for the Memphis Regional IMF included a quantitative inventory of emissions for the proposed facility and included the conservative estimation of MSATs for nonroad sources, e.g., yard equipment and locomotive based on the ratio of VOC emissions from on-road mobile sources to the nonroad sources. This ratio was then applied to the individual MSAT emissions for the mobile sources to allow for an estimation of emissions for the nonroad

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equipment and locomotives.
#8. Mobile Source Air Toxics (MSATs) b. Diesel exhaust is of particular importance at an intermodal facility. Diesel exhaust is a complex mixture of hundreds of constituents in gaseous and particulate form. The particulate matter present in diesel exhaust consists primarily of fine particles, whose small size allows them to reach deeply into the lungs. EPA's 2002 final "Health Assessment Document for Diesel Engine Exhaust" classified exposure to diesel exhaust as likely to be carcinogenic to humans at environmental exposures. Recent studies continue to show that populations living near large diesel emissions sources are likely to experience greater diesel exhaust levels than the overall U.S. population, potentially placing them at greater health risk. (For example, see the diesel risk studies performed by the California Air Research Board at the ports of Los Angeles and Long Beach, California's rail yards, and West Oakland. Rail yard study at: http://www.arb.ca.gov/dieselldocuments/rrstudy.htm Oakland Community diesel risk evaluation at: http://www.arb.ca.gov/chicommunities/ralwestoakland/documents/draftsummary031908.pdf Ports of Los Angeles and Long Beach studies at: http://www.arb.ca.gov/regact/marine2005/portstudy0406.pdf) Emissions associated with an intermodal facility involve not only those from line-haul and switching locomotives and cranes at the facility itself, but also emissions from many other sources such as trucks along the feeder routes to the IMF and at distribution centers serviced by the IMF. *It appears that this comment is based on the previous version of the EA. In response to agency and public comments, the July 8, 2010 EA included revisions to Sections 3.7, 3.18, and 3.19 to provide additional information and analysis of potential impacts on air associated with the Memphis Regional IMF, including additional discussion of MSAT emissions, including diesel exhaust, in Section 3.7.3.1.* *All the referenced studies are associated with rail yards, IMFs, ports and air analysis in California. As evidenced by California's unique environmental status as the only state with a waiver from EPA to enact stricter air pollution standards for motor vehicles than the Federal government's, comparisons to air analysis and practices in California are not relevant to analysis of the Memphis Regional IMF, which is being located in an area in attainment for all NAAQs. See California State Motor Vehicle Pollution Control Standards; Notice of Decision Granting a Waiver of Clean Air Act Preemption for California's 2009 and Subsequent Model Year Greenhouse Gas Emission Standards for New Motor Vehicles, 74 FR 32744 (July 8, 2009).* *Additionally, most of the studies referenced are distinguishable from the Memphis Regional IMF because the analysis is focused on rail yards, ports or a collection of multiple facilities, rather than individual IMFs.* *Further, even the studies related to IMFs are distinguishable from the Memphis Regional IMF based on the size of the facilities (often much larger than the Memphis Regional IMF), location of the facilities (all the IMFs are located in California with California's unique environmental characteristics and air quality as well as differing state regulations and local concerns), and the age of the facility (often older that the Memphis Regional IMF, which is a new facility, committed to utilizing new technologies, such as Tier 4-engines on the overhead lift cranes). The EA Sections 3.7, 3.18, and 3.19 provide analysis of potential impacts on air associated with the Memphis Regional IMF.*
#8, Mobile Source Air Toxics (MSATs)

Table 5: EPA's Comments to July 8 EA / *Responses*

c. For modeling impacts of this project, EPA recommends that TDOT/NSR use AERMOD *Sections 3.7, 3.18, and 3.19 of the July 8, 2010 EA include analysis of potential impacts on air associated with the Memphis Regional IMF. Section 3.7.3.1 includes discussion of modeling methodologies utilized, which included MOBILE6.2 and NONROAD.* *As discussed in the Draft EA Section 3.7.3 starting on page 3-43, the Memphis Regional IMF, and Industrial Road used to access the facility, are located in Fayette County, Tennessee and Marshall County, Mississippi. Both of these counties are in attainment for all applicable air pollutants. Therefore, a detailed analysis of the emission and subsequent dispersion of air pollutants was not required and neither AERMOD nor other available air dispersion models were used. As discussed in the Draft EA Section 3.7.3.1 starting on page 3-45 some air quality analysis was still undertaken to evaluate impacts using MOBILE6.2 and NONROAD.*
#8, Mobile Source Air Toxics (MSATs), c 1. Identify other large sources of air toxics in the area, and other air toxics sources in the area whose emissions are likely to increase or decrease if the project moves forward (e.g. is the new facility likely to foster residential or business development that might be affected by emissions from the site or its support roads; will there be additional or expanded roadways or railways related to the IMF and distribution facilities, e.g., the Industrial Road, US Highway 72 in Mississippi, SR 385 in Tennessee, roads to nearby existing or anticipated distribution facilities, links to the existing Memphis area intermodal facility and port operations, etc.). The impact of these facilities and infrastructure, whose existence and/or size is related to the planned IMF, should be evaluated just as the proposed Memphis IMF itself. The evaluation should also cite existing relevant air monitoring data. *Sections 3.7, 3.18, and 3.19 of the July 8, 2010 EA include analysis of potential impacts on air associated with the Memphis Regional IMF, including evaluations of existing air quality and potential future development in the vicinity of the proposed facility.* *As discussed in the EA Section 3.7.2 starting on page 3-41 a comprehensive analysis was performed to quantify the facility's air emissions at maximum design capacity and to predict the impact of those emissions on ambient air quality in the vicinity of the facility. Under current conditions, there are no large sources of air toxics in the immediate vicinity of the proposed facility. Figure 3-14, shows the locations of nearby sensitive receptors, confirming the current lack of nearby development and/or receptors.* *In Section 3.18.12 Indirect and Cumulative Impacts for Air starting on page 3-193, the analysis of any impacts associated with the potential future development in the vicinity of the proposed facility is discussed.* *The EPA's AirData Database only identified countywide emissions with no relevant air monitoring data. No known monitoring stations have been identified in Fayette County, Tennessee.*

Table 5: EPA's Comments to July 8 EA / *Responses*

#8, Mobile Source Air Toxics (MSATs), c

2. Evaluate the potential impact of emissions on nearby individuals and groups including sensitive populations such as those at schools, hospitals, day care facilities, nursing homes, etc. How many people live in the area, and are any nearby communities medically underserved or environmental justice communities? Are there populations with currently high rates of adverse health conditions that might be exacerbated by the air toxics emissions?

Sections 3.7, 3.18, and 3.19 of the July 8, 2010 EA include analysis of potential impacts on air associated with the Memphis Regional IMF, including identifying locations of nearby sensitive receptors in Figure 3-14.

The proposed location of the facility is rural with only approximately 55 residences located within ½ mile of the project limits and 20 residences located within ½ mile of the Industrial Road. As shown on Figure 3-14 on page 3-45, there are no sensitive populations (e.g. schools, hospitals, day care facilities, nursing homes, etc.) near the proposed facility.

As concluded in the Section 3.4.2 starting on page 3-33, no adverse impacts to a minority or low income population have been identified as a result of the Memphis Regional IMF.

The No-Build Alternative is in mid-town Memphis having a dense population with lower-income and large minority population.

#8, Mobile Source Air Toxics (MSATs)

d. At present, the NEPA documents doesn't 1) inform the public as to all reasonably foreseeable, adverse impacts resulting from the project, or 2) identify differences in impacts among the alternatives, 3) identify possible mitigation measures, including actions that may be outside the jurisdiction of the lead agency, including possible changes to the project design.

Section 3 of the July 8, 2010 EA includes discussion of all reasonably foreseeable direct, indirect and cumulative impacts of the Memphis Regional IMF. Section 2 of the July 8, 2010 EA includes discussion of 6 build alternatives and the no build alternative, including identifying differences in impacts throughout Section 2 and as summarized in Table 2-2. Section 3 of the July 8, 2010 EA identifies potential mitigation measures and project design considerations including but not limited to discussions of noise mitigation measures in Section 3.8, stream mitigation measures in Section 3.12.2, wetland mitigation measures in Section 3.12.3, Memphis Sand mitigation measures in Section 3.12.6, and stormwater mitigation measures in Section 3.12.7. In addition, the Environmental Commitments section beginning on page xi of the July 8, 2010 EA describes the measures that NSR will utilize to avoid, minimize, and/or mitigate impacts to the human and natural environment associated with construction and implementation of Memphis Regional IMF, including detailed design modifications. Concurrence Point #4, Preferred Alternative and Preliminary Mitigation Package includes further summary of the alternatives analysis and mitigation measures associated with the Memphis Regional IMF.

#8, Mobile Source Air Toxics (MSATs)

e. A screening-level analysis was done for EPA's 2008 locomotive and marine rule which addressed the local impacts of ports and rail yards on minority and low income populations as well as children. A summary of the analysis is found in Section 2.4.1 of the Regulatory Impact Analysis (http://www.epa.gov/otaq/regs/nonroad/420r08001a.pdf). The analysis includes two rail yards in Tennessee.

Sections 3.7, 3.18, and 3.19 of the July 8, 2010 EA include analysis of potential impacts on air

Table 5: EPA's Comments to July 8 EA / *Responses*

associated with the Memphis Regional IMF. The Memphis Regional IMF would have different impacts than the large rail yards identified in EPA's 2008 rule. Section 3.4.2 of signed EA analyzes potential impacts to minority or low-income population and determines there will be no adverse impacts to minority and/or low-income populations. *The rail yards referenced in EPA's Screening Level Analysis are different than the Memphis Regional IMF. The primary function of IMFs is the loading and unloading of containers/trailers to and from stationary rail cars - an IMF consists principally of tracks where the loading and unloading takes place, large temporary parking areas for containers and trailers, and support tracks. The primary function of a traditional rail yard is the sorting of individual rail cars into complete trains – a traditional rail yard consists principally of a large number of tracks where the sorting takes place. Even with the different uses and impacts of traditional rail yards versus IMFs, both of the traditional rail yards analyzed are old facilities set in urbanized locations.*
#8, Mobile Source Air Toxics (MSATs), e 1. Prepare an estimate of maximum impacts anticipated in the area around the proposed facilities, including an assessment of the potential impacts of both the construction and operation of each alternative considered. *It appears that this comment is based on the previous version of the EA. In response to agency and public comments, the July 8, 2010 EA included revisions to add a general qualitative evaluation of the alternatives in Section 3.7.3.1 at page 3-50.* *Each alternative considered in Section 2 of the EA was analyzed as to whether or not the alternative met the purpose and need of the project and the minimum operational requirements. One alternative was determined to meet the need and purpose of the project, the Build Alternative. To meet the purpose and need for an intermodal facility, it must perform 327,000 lifts per year. The air quality technical report specifically addresses the one alternative carried forward into the Draft EA, the Build Alternative, including assessment of potential impacts.* *Emissions from any alternative would be comparable to the Build Alternative performing 327,000 lifts per year. The only difference between the alternatives is location. Of the alternatives not considered viable, two were in Shelby County in a non-attainment area while the other four were in Fayette County in an attainment area.*

Table 5: EPA's Comments to July 8 EA / *Responses*

#8. Mobile Source Air Toxics (MSATs), e

2. Identify alternatives to avoid or minimize the impacts of the proposed project. For example:

a. A ban on open burning during construction- all materials that would normally be burned should be recycled to the extent feasible to avoid health and visibility impacts.

b. Minimizing dust and debris generated during construction.

c. Construction limited to the smallest footprint feasible to avoid environmental degradation and reduce the amount of dust generated during construction.

d. Maintenance of the maximum amount of trees feasible to reduce footprint, noise and dust dispersion during construction.

e. Installation of the latest air pollution control devices on all construction equipment (see EPA's Verified Technologies List for diesel engines at http://www.epa.gov/otag/retrofit/verif-list.htm).

f. Use of ultra low sulfur fuel exclusively for construction equipment/trucks/locomotives, etc.

g. Restriction on the time that engines may be left to idle.

Sections 3.7 and 3.19 of the July 8, 2010 signed EA, as well as the Environmental Commitments section beginning on page xi, identify multiple areas in which NSR has committed to reduce or minimize potential impacts on air, including the use of Tier 4 engines on the overhead lift cranes, use of ultra low sulfur fuel, to the extent that it is available, and adoption of Best Management Practices (BMPs) to minimize dust and debris associated with construction.

Although there is no requirement to do so, NSR has already committed to reducing its emissions by using Tier 4-engines for the overhead lift cranes at the proposed facility. The equipment operating at the site will also be using Ultra low sulfur diesel (*ULSD) fuel, to the extent that it is available, which (as noted) should be the case following EPA's June 2010 fuel standard schedule. Also as noted by EPA, the ULSD fuel standard commences in 2010, providing for reduced sulfur content. Other mitigation measures are being considered as part of the environmental review process.*

#8. Mobile Source Air Toxics (MSATs)

f. On page 50, last paragraph states, "EPA's vehicle and fuel regulations, coupled with fleet turnover, would cause substantial reductions over time that in almost all cases the MSAT levels in the future will be significantly lower than today." It is important to note that projected emission reductions do not absolve the sponsor and FHWA from the responsibility to protect public health from emissions associated with this project by using appropriate mitigation measures.

Sections 3.7 and 3.19 of the July 8, 2010 signed EA, as well as the Environmental Commitments section beginning on page xi, identify multiple areas in which NSR has committed to reduce or minimize potential impacts on air, including the use of Tier 4 engines on the overhead lift cranes, use of ultra low sulfur fuel, to the extent that it is available, and adoption of Best Management Practices (BMPs) to minimize dust and debris associated with construction.

A discussion of the air quality analysis methodology, results, and conclusions is provided in Sections 3.7, 3.18 and 3.19 of the Draft EA. The proposed location of the facility is rural with only approximately 55 residences located within ½ mile of the project limits and with another 20 residences located within ½ mile of the Industrial Road. Within this radius as shown on Figure 3-14 on page 3-45, there are no sensitive populations. Section 3.4 discusses the lack of adverse

Table 5: EPA's Comments to July 8 EA / *Responses*

impacts to a minority or low income populations associated with the Memphis Regional IMF. *The No-Build Alternative is in mid-town Memphis having a dense population with lower-income and large minority populations. Construction and operation of the proposed facility will actually decrease emissions of criteria pollutants and MSATs at the Memphis location through the shift of a portion of the domestic intermodal shipments to the new facility. Although there is no requirement to do so, NSR has already committed to reducing its emissions by using only Tier 4-engines on the overhead lift cranes) at the proposed facility. The equipment operating at the site will also be using ULSD fuel, to the extent that it is available. Other mitigation measures are being considered as part of the environmental review process.*
#8. Mobile Source Air Toxics (MSATs) g. Identify alternatives to avoid or minimize the impacts of the proposed project. For example: 1. A ban on open burning during construction- all materials that would normally be burned should be recycled to the extent feasible to avoid health and visibility impacts. 2. Minimizing dust and debris generated during construction. 3. Construction limited to the smallest footprint feasible to avoid environmental degradation and reduce the amount of dust generated during construction. 4. Maintenance of the maximum amount of trees feasible to reduce footprint, noise and dust dispersion during construction. 5. Installation of the latest air pollution control devices on all construction equipment (see EPA's Verified Technologies List for diesel engines at http://www.epa.gov/otag/retrofit/verif-list.htm). 6. Use of ultra low sulfur fuel exclusively for construction equipment, trucks, locomotives, etc. 7. Restriction on the time that engines may be left to idle. 8. Etc. *It appears that this comment is a duplicate of comment 8.e.2 above. Please see response provided above to comment 8.e.2.*
EPA Comment #8, Mobile Source Air Toxics (MSATs) h. The FHWA's September 30, 2009, Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents addresses the level of analysis that is warranted by different types of transportation projects. The guidance identifies three levels or tiers of analysis. The most rigorous level is tier 3 which includes, according to the guidance: (3) Projects with Higher Potential MSAT Effects This category includes projects that have the potential for meaningful differences in MSAT emissions among project alternatives. We expect a limited number of projects to meet this two-pronged test. To fall into this category, a project must: •Create or significantly alter a major intermodal freight facility that has the potential to concentrate high levels of diesel particulate matter in a single location; or •Create new or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the AADT is projected to be in the range of 140,000 to 150,000 or greater by the design year. And also •Proposed to be located in proximity to populated areas

Table 5: EPA's Comments to July 8 EA / *Responses*

In response to agency and public comments, the July 8, 2010 EA included revisions to Section 3.7.3.1 to incorporate FHWA guidance language on MSAT and to clarify that the air analysis for Memphis Regional IMF was completed in compliance with the FHWA guidance, which supports the identification of the Memphis Regional IMF as a Level 2 project requiring qualitative analysis. *The maximum expected increase in truck traffic at the proposed facility is 834 trucks per typical weekday (less on weekends) (1668 round trips), which is less than 1.5 percent of EPA's guidance for total AADT for particulate matter and less than 1.2 percent of FHWA's guidance for total AADT for MSATs. The emissions from rail activity as estimated for the Memphis Regional IMF are not large enough to make up the remaining 98.5 percent of emissions associated with "air quality projects of concern." The completed evaluations support the identification of the proposed Memphis Regional IMF as a Level 2 project that requires a qualitative analysis of MSATs due to the low potential MSAT effects.* *In addition, the proposed location of the facility is rural with only approximately 55 residences located within ½ mile of the project limits and 20 residences located within ½ mile of the Industrial Road. Within this radius as shown on Figure 3-14 on page 3-45, there are no sensitive populations (e.g., schools, hospitals, day care facilities, nursing homes, etc.). Therefore, the proposed project does not fulfill the second prong of the two-prong test which requires that the project be located in proximity to populated areas.*
#8. Mobile Source Air Toxics (MSATs) i. The Memphis Regional Intermodal Facility project is among the types specifically identified in this guidance from the FHWA, i.e., a new major intermodal freight facility that will involve heavy truck, train, and support equipment operations, and that is in a populated area. The September 30, 2009, guidance states that for these level 3 projects there should be "Quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects." Is there a quantitative analysis that compares the different alternatives from an air toxics perspective? *In response to agency and public comments, the July 8, 2010 EA included revisions to add a general qualitative evaluation of the alternatives in Section 3.7.3.1 at page 3-50.* *An initial quantitative analysis of MSAT emissions was completed for the proposed project. An analysis that compares different alternatives from an air toxics perspective was not needed as only one alternative, the Build Alternative, meets the purpose and need for an intermodal facility including the ability to perform 327,000 lifts per year. Therefore, emissions from any alternative meeting the need and purpose would be comparable to the Build Alternative performing 327,000 lifts per year*
#8. Mobile Source Air Toxics (MSATs) j. On page 3-58, second paragraph, TDOT/NSR states, "Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting impacts. Consequently, the results of such assessment would not be useful to decision makers, who would need to with this information against project benefits...". It should be noted that a screening level analysis using existing models and available toxicity information, can be conducted to compare the potential impacts of different alternatives. EPA published the Air Toxics Reference Library in order to assist in the screening evaluation of air toxics exposures for health impacts. That library is available at http://www.epa.gov/ttn/fera/risk_atra_main.htm. Additionally, disclosure of health impacts within a NEPA document is not only to assist decision makers, but is to also inform and educate the public on potential impacts.

Table 5: EPA's Comments to July 8 EA / *Responses*

In response to agency and public comments, the July 8, 2010 EA included revisions to Section 3.7.3.1 to incorporate FHWA guidance language on MSAT and to clarify that the air analysis for Memphis Regional IMF was completed in compliance with the FHWA guidance. The language quoted by EPA above comes directly from FHWA's guidance language on MSAT in Appendix C-Prototype Language for Compliance with 40 CFR 1502.22. *The No-Build Alternative is located in mid-town Memphis having a dense population with lower-income and large minority populations.* *Construction and operation of the proposed facility will actually decrease emissions of criteria pollutants and MSATs at the Memphis location through the shift of a portion of the domestic intermodal shipments to the new facility.* *Only one build alternative which met the purpose and need for an intermodal facility was carried forward into the EA, the Build Alternative. This and any alternative meeting the purpose and need would perform 327,000 lifts per year. Therefore, emissions from any alternative would be comparable to the Build Alternative performing 327,000 lifts per year.*
#8. Mobile Source Air Toxics (MSATs) k. The EA notes that the project will result in rail traffic and is expected to increase truck traffic up to 1668 round trips on a typical weekday, the EA should discuss the literature concerning near-roadway health impacts. There is a large and growing body of studies on the topic. *It appears that this comment is based on the previous version of the EA. The July 8, 2010 EA included revisions to address a substantially similar comment in EPA's March 24, 2010 Comments. Section 3.7.3.1, page 3-49 to 3-50, of the July 8, 2010 EA included revisions to incorporate discussion of near-roadway health studies.*
9. Groundwater Impacts: a. On page 3-108, the maintenance pad will handle maintenance and fueling activities and have 5 above ground tanks (ASTs) ranging in size from 300 - 3,000 gallons. The ASTs will be required to have secondary containment. The stormwater from the maintenance pad will be treated by an oil- water separator and the pollutants discharged to the Rossville separate sewer system. Are there any considerations of requiring the City of Rossville, WWTP to require pre-treatment conditions prior to allowing this discharge into the separate sewer system from the maintenance pad area oil-water separator? There is no indication of how large the maintenance pad area is, but a large storm event could trigger more water for the Rossville WWTP to handle, prior to discharge into a stream. According to the University of Memphis, Groundwater Institute, 95% of the recharge of the aquifer occurs through the areas streams. *The maintenance pad area is approximately 8,900 square feet with the drainage area into the bio-treatment pond being 0.6 acre. As stated on page 3-108 of the June 8, 2010 signed EA, "The stormwater from the maintenance pad would be treated via an oil-water separator. The pollutants would be disposed of through the Rossville separate sewer system. The remaining stormwater would be discharged into a bio-treatment pond. The bio-treatment pond is not lined to allow for vegetation and natural processes to function as designed. Effluent from the bio-treatment pond would pass through a lined stormwater detention basin" and ultimately into Stream 6. In other words, any process water created on the maintenance pad will be sent through the City of Rossville's collection system for final treatment at their waste water treatment plant (WWTP) after passing through the site's oil-water separator.* *NSR has been in contact with Rossville regarding sewer and water demands from the proposed*

Table 5: EPA's Comments to July 8 EA / *Responses*

project starting on October 5, 2010. Based on the projected facility demands, the water for the project will be provided by Piperton, while the sewer is provided by Rossville. The sewer system design for the site will be consistent with the capabilities and requirements of the Town of Rossville. While the water system design for the site will be consistent with the capacity and requirements for the City of Piperton.

#9. Groundwater Impacts:

b. On page 3-108, the construction of the paved concrete container and trailer transfer and parking area within the operating yard and maintenance pad area would eliminate direct recharge in this 233 acre section of the IMF. Of the 650 acre project area, 270 acres outside of the 380 acre facility would be either left natural or restored to open or green space, which would allow for continued recharge. The majority of the stormwater collected on the paved operating yard would discharge into Stream 6 after passing through the stormwater basins, which fundamentally matches the pre-construction drainage pattern. The stormwater directed to Streams 5 and 6 would allow recharge to occur through the Unnamed Tributary of Wolf River. The large paved area has eliminated direct recharge to the groundwater. It is mentioned that only 4 spills have occurred at Norfolk Southern Railroad in the last 2 years (2008-2009) with the largest spill of 25 gallons. It would be good to get more information on the spills and whether or not the spilled product actually reached a surface water in a recharge area like this. No comment is made on whether the Stormwater BMPs are adequate enough to protect the recharge areas, but some type of clay material will be compacted in the bottom of the stormwater basins. EPA recommends that TDOT further discuss the stormwater BMPs protective relationship to the recharge area.

NSR has applied for an individual construction permit with TDEC, which includes a site specific SWPPP and detailed stormwater BMPs. TDEC held a joint individual ARAP and individual construction permit hearing on August 3, 2010. Based on the plans provided by NSR and the comments received, TDEC plans on issuing their statement of determination and the permits on or before October 30, 2010. During the TDEC individual construction permit, NSR worked closely with TDEC to respond to public and agency comments regarding stormwater and the utilization of BMPs.

*NSR has met with the University of Memphis Ground Water Institute (GWI) on March 16 and July 27, 2010, to discuss the potential impacts of the Memphis Regional IMF on the Memphis Sand and its recharge area, including stormwater impacts. In a letter to TDEC from the GWI dated August 17, 2010, the GWI stated: "*After our two meetings, I am convinced that the personnel from AMEC and Norfolk Southern Corporation are more than aware of the value of the Memphis Sand as a drinking water aquifer. The Build Alternative 1 would disturb approximately 440 acres of the 650 acres of the property. Within the 380 acres facility on the property, 233 acres would be paved. These 233 acres would virtually shut off any recharge to the Memphis Sand immediately below. However, the GWI does not view this as a significant impact to the Memphis Sand as a whole*."*

*More specifically, the GWI addressed construction practices related to the Memphis Sand and noted that "*During construction, Norfolk Southern has plans in place to immediately respond to sand exposed as a result of grading of their facility and provide a 12-inch compacted clay cap over any exposures that might exist after the finished grade is reached. If sufficient clay is not available locally, then the required volume would be brought in to provide the required coverage. Norfolk Southern also has an emergency response plan to deal with any petroleum spills or other contaminants that might occur during construction or operation of the facility. Since the tonnage is containerized, overt spillage is not likely to pose a problem*."*

Table 5: EPA's Comments to July 8 EA / *Responses*

None of the 4 spills referenced above reached a surface water in a recharge area similar to the Memphis Sand and as noted by GWI above, NSR has an emergency response plan and spill is not likely to pose a problem.
#9, Groundwater Impacts: c. EPA recommends that prior to construction, some type of monitoring well sampling should be investigated using current groundwater wells or newly installed groundwater wells. Monitoring well sampling is needed since the City of Collierville is located to the Northwest of this proposed facility and currently uses groundwater from eleven deep wells. The City of Rossville has a few shallow groundwater wells to the Northeast of the proposed Memphis Regional IMF. Regional groundwater flow appears to be to the West and Northwest and shallow groundwater flow appears to be to the North and Northwest toward the Wolf River. *As discussed above, NSR has applied for an individual construction permit with TDEC, which includes a site specific SWPPP and monitoring plan. TDEC does not have a requirement to conduct monitoring well sampling.* *In response to agency and public comments, the July 8, 2010 EA included revisions to Sections 3.12.6 and 3.18.6 to incorporate additional analysis of potential impacts on wells associated with the Memphis Regional IMF. As stated in the July 8, 2010 EA Section 3.12.6, Collierville's water supply is taken from eleven deep wells pumping from 350 foot and 600 foot sands, substantially below the finished elevation of the facility.* *Residential water wells are present around the project site along Knox Road, Neville Road, and SR-57. As reported by TDEC Ground Water Management Section, these wells are relatively shallow on the order of 90-150' deep. Based on topographic relief in the area and on the planned elevation of the facility, the screened well intervals should be 80 to 150' below the planned IMF elevation.* *The Town of Rossville obtains its water from three groundwater wells ranging from 90-102' deep. The Town of Collierville's water supply is taken from eleven deep wells pumping from 350' and 600'. Piperton obtains its water from Collierville. Rossville and Collierville both have a Well-Head Protection Program and Well-Head Protection Plan. The maximum Wellhead Protection zone per TN Public Water Supply Rule (1200-5-1-.34) is 750', which does not extend into the footprint of the proposed IMF.* *As discussed in additional detail in Section 3.12.6 and Section 3.13, NSR has proposed construction techniques that would provide protection to the underground water sources during construction and operation of the facility. Federal hazardous materials transportation laws and regulations limit freight that can and cannot be shipped through intermodal service. As discussed in additional detail in Section 3.16, NSR has an extensive site specific spill prevention program and its record of intermodal shipment spills demonstrate that such spills are extremely rare and typically involve very small quantities.*
EPA Comment #9, Groundwater Impacts: d. Additionally, some type of removal action was initiated by EPA Region 4 at the Rossville Metals facility during 1998, after some contaminants were found in the soil and groundwater. EPA recommends that TDOT/NSR further investigate and discuss this removal action in the Final EA. *Ross Metal, located at 100 North Rail Road Street in Rossville, was identified in the Phase I ESA and is discussed in the in the July 8, 2010 EA in Section 3.16: "From 1978 to 1992, Ross Metals operated a secondary lead smelter at the site. It received spent lead acid batteries, lead oxide,*

Table 5: EPA's Comments to July 8 EA / *Responses*

scrap metal, and other lead waste and material. Blast furnace slag was managed on site in a landfill. Wastewater and runoff was collected in the northeast corner of the Ross Metals facility and discharged into a wetland area. The EPA conducted a removal option at the site. The Ross Metals property is not anticipated to have caused a recognized environmental condition on the Build Alternative 1 site due to its distance away and the anticipated groundwater flow direction away from the Ross Metals site toward the Wolf River."
10. Sustainability. EPA encourages TDOT and NSR to continue to work collaboratively with TDEC, MDEQ, MDOT, USACE, other resource agencies, public and other stakeholders to construct an environmentally sustainable facility. NSR has the opportunity to construct a "Green" facility and to set an example and standard for future IMF design. *As part of the TESA process, TDOT has and will continue to coordinate with the TESA agencies (USACE, EPA, U.S. Fish and Wildlife Service, Tennessee Valley Authority, TDEC, and Tennessee Wildlife Resources Agency) and the coordinating agencies (MDOT and USACE). In addition, TDOT has further addressed comments during the Public Hearing comment period in Concurrence Point #4.* *As noted in Section 3.15.2 of the July 8, 2010 signed EA, NSR was the first large railroad in the nation to join the U.S. Green Building Council, a Washington based nonprofit dedicated to promoting cost-efficient and energy-saving buildings. The administrative building for the Memphis Regional IMF is being designed for submission as a LEED Green Building Rating System certified building.*

Appendix E – Public Hearing Materials, Public Comments and Responses

Table 6 summarizes the consolidation of public comments received and provides a response.

Table 6: Consolidated Public Comments and Response

Applicable EA Section / Category	Consolidation of Public Comments	Responses
1 Operation	Freight revenues all over the country are declining dramatically.	The purpose and need of the IMF is addressed in EA Section 1. The long-term trend and projection is for the intermodal mode of transportation to increase. The Memphis Regional IMF would flatten the increase in demand for long-haul trucks from the highway system by transferring their containers or trailers to IMF trains. The project would improve transportation efficiencies regionally and nationally. Domestic IMF traffic planned for the proposed IMF is growing dramatically in 2010. Year to date (first 7 months of 2010) NSR domestic traffic has increased over 28% when compared to same timeframe in 2009 or over 25% when compared to the same timeframe in 2008. The multi-year trend of dramatic growth in domestic intermodal traffic is the impetus for developing the Memphis Regional IMF. These figures support increased freight demand as set forth in the EA Section 1.0 Purpose and Need and the studies cited in the EA. Additionally, based on the analysis contained in the American Association of State Highway and Transportation Officials (AASHTO) July 2010 Report, *Transportation Reboot: Restarting America's Most Essential Operating System – The Case for Capacity: To Unlock Gridlock, Generate Jobs, Deliver Freight, and Connect Communities, Part 2 of the Series, Unlocking Freight* noted increased freight demand despite economic issues in 2008 and pointed out the need for transportation infrastructure including intermodal to support national transportation and economic needs.
2.2 Alternative – No-Build	Prefer the No-Build Alternative. It is environmentally safer, less urban sprawl and suburb disturbance. Best solution from a business, environmental, and tax payer perspective.	The purpose and need is addressed in EA Section 1 and the alternative selection criteria are addressed in EA Section 2. The No-Build alternative does not meet the need and purpose of the project. The No-Build alternative would cause an increase in long-distance highway truck traffic rather than an increase in environmentally preferable rail-truck intermodal service, hamper economic growth in the Memphis Region, and eliminate the public benefits of intermodal transportation by decreasing transportation and energy efficiency and increasing emissions. NSR's existing Forrest IMF in an urbanized area of Memphis is operating at or above its original design capacity and is currently using less effective methodologies to handle the volume of freight moving through the facility. It cannot be expanded due to physical space limitations (surrounded by streets and houses). The projected requirement for intermodal freight is approximately 2-½ times the Forrest IMF capacity.

Table 6: Consolidated Public Comments and Response

Applicable EA Section / Category	Consolidation of Public Comments	Responses
2.2 Other Alternatives	An IMF should not be built in the aquifer recharge zone. A location outside of the recharge zone should be selected.	The purpose and need of the IMF is addressed in EA Section 1 and the alternative selection criteria are addressed in EA Section 2. A location outside the footprint of the Memphis Sand aquifer (which underlies a vast area including parts of KY, TN, AL, AR, MS, LA, and TX) does not meet the project's purpose and/or meet the screening criteria defined in the EA Section 2.1. The Rossville area fits well with the warehousing growth trends (EA Figure 1-9), proximity to highway infrastructure, proximity to NSR's mainline (EA Figure 2-2), and locations with sufficient space for an IMF.
2.3 Build Alternative	Strongly support IMF coming to Fayette County. Support the project. There is no way the current facility can handle any growth. We (Tennessee) need the economic development that it will bring. Prefer rail transport of materials to trucks on highway.	The purpose and need is addressed in EA Section 1 and the alternative evaluation criteria are addressed in EA Section 2. Build Alternative 1 best meets the defined criteria and is the only build alternative brought forward into the EA.
3.1 Land Use	How the land is zoned has no impact on what makes the land environmentally appropriate. The project would cause urban sprawl at its ugliest. There are options in Memphis metro area already built that are vacant or underutilized. Completely bad idea that in the long run ruins a lovely farming and residential area.	The alternatives, potential land use and social impacts are addressed in the EA Sections 2.0, 3.1, 3.4 and 3.18 and in the Air, Ecology and Noise Technical Reports (on file with TDOT). As discussed in the EA Section 2, between 2003 and 2009, six alternatives were evaluated for the Memphis Regional IMF project. As noted in the EA Section 3, the project is not expected to have substantial land use or social impacts. The project will obtain and comply with applicable permits. Impacts to natural environment will be avoided, minimized or mitigated during project design. Fayette County's urban growth plan, Rossville planning and zoning regulations, and Marshall County's zoning regulations, provide for industrial development at this location as shown in EA Figure 3-2.
3.3 Overpass	Concerned about the overpass. The way I understand it out there it's going to end about a hundred feet east of Neville Road, and it's going to be a high incline. What safety precautions are they going to put at the end of Neville Road to access the highway without getting run over?	The indirect impacts of the overpass construction are discussed in the EA Section 3.18 and 3.19. The proposed SR-57 overpass geometry meets TDOT design guidelines for sight distance for traffic accessing Neville Road at SR-57 and entering SR-57 from Neville Road.

Table 6: Consolidated Public Comments and Response

Applicable EA Section / Category	Consolidation of Public Comments	Responses
3.3 Traffic Rush Hour	The added traffic at rush hour was not sufficiently addressed. Just because the peak use is during mid-day doesn't mean there will not be a problem. What are the road conditions going to be like with all of these additional trucks on the road during so-called rush hour?	As discussed in the EA Section 3.3 and the Traffic Impact Studies (on file with TDOT and MDOT), AM and PM rush hours were reviewed as maximum traffic volume times when evaluating warrant requirements and determining LOS. These are the volumes used to design the recommended improvements to the intersection of US Hwy 72 and Industrial Road. The peak traffic time for the proposed IMF (between noon and 2 p.m.) is predicted to occur at a different time of day than US Hwy 72 current rush hours (6 - 8 a.m. and 4 - 6 p.m.).
3.3 Widening US 72	US 72 is a two-lane highway. The widening of US 72 to 4-lanes needs to be completed before the access road for the IMF is allowed to connect to US 72. MDOT is nowhere close to widening US 72.	MDOT plans to widen US Hwy 72 are discussed in the EA Section 3.18.2. Construction of US Hwy 72 from MS 302 to the TN State Line was programmed in the MS Statewide Transportation Improvement Plan (STIP) for 2012.[41] MDOT is in the process of updating its environmental documentation for widening their last section of US Hwy 72. As discussed in the EA Section 3.3, in anticipation of the planned widening of US Hwy 72 to four lanes in the vicinity of the project area, MDOT has requested that the design and construction of the proposed intersection of Industrial Road and US Hwy 72 include widening US Hwy 72 to four-lanes, with stub-outs to the east and west.[42] The Traffic Impact Study (on file with TDOT and MDOT) and the EA Figure 3-11 show what improvements are warranted at US Hwy 72 and Industrial Road. These improvements will be made by the private Developer in conjunction with the MDOT Highway Occupancy Permit (HOP): turn lane for right and turn lane for left turning vehicles from Industrial Road; eastbound left turn lane on US Hwy 72; locate the intersection to provide adequate sight distance to the west and east; and acceleration and deceleration lanes on the westbound section of US Hwy 72.

[41] Mississippi DOT 2010-2013 STIP, US 72 from FR 302 to Tennessee State Line, NEED ID 4752.

[42] Meeting with MDOT, NSR, AECOM, AMEC, and Developer in Batesville on October 22, 2009.

Table 6: Consolidated Public Comments and Response

Applicable EA Section / Category	Consolidation of Public Comments	Responses
3.3 Traffic Volume	Three trucks per minute is too much for other drivers to deal with. US 72 is already overloaded. Estimating a slight increase in truck traffic on US 72 with a thousand trucks or more projected a day, where we currently have hundreds a day, is not slight. We now can't handle the traffic that's going through there at this time. If you're going to add all of these additional trucks on the road during the course of the day, how are you going to handle it and what are the road conditions going to be like?	As discussed in the EA Section 3.3 and the Traffic Impact Studies (on file with TDOT and MDOT), the 2009 Level of Service (LOS) for the 2-lane section of US Hwy 72 near the proposed location of Industrial Road is LOS C, which is considered acceptable. The access point to the IMF and the nearby commercial development is onto US Hwy 72. Near the proposed location of Industrial Road, the 2009 traffic on US Hwy 72 is 20% heavy vehicle traffic. Even though traffic volumes have been decreasing on US Hwy 72 for the past 5 years, the background traffic volume was assumed for study purpose to increase by 2.5% per year, as requested by MDOT. In 2015, less than 13% of the predicted traffic on US Hwy 72 would be from the IMF. By 2032, the IMF traffic is predicted to be only 10% of the traffic on US Hwy 72. Based on the predicted background increase in traffic and the predicted volume of IMF traffic in 2015 and 2032, the LOS for the proposed 4-lane section of US Hwy 72[43] would be LOS C. If US Hwy 72 remains 2-lane with a 1% growth rate, the LOS would remain LOS C in 2015. If the 2.5% growth rate requested by MDOT is used, the assumed traffic would be at the lower end of the LOS D threshold range. The Highway Capacity Manual (HCM) states “most design or planning efforts typically use service flow rates at LOS C or D to ensure an acceptable operating service for facility users.”

[43] MDOT has the widening of US Hwy 72 programmed to start construction in 2012.

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Applicable EA Section / Category	Consolidation of Public Comments	Responses
3.3 Traffic SR-57/SR-196	What will be the impact from the traffic on SR-57/ SR-196? Are SR-57/ SR-196 adequate to handle increased traffic generated by the IMF? There will be absurd amounts of traffic added to SR-57. No study of increased traffic on HWY 57 that is only 2 lanes inconsequence to vehicles avoiding increased traffic on HWY 72. There is no LOS for SR-57 and US-72 in Collierville in the EA. Traffic with a destination in Collierville, Cordova, or Germantown may find it more convenient to travel on SR-57 in Collierville, thus making the intersection of US-72 and SR-57 and traffic on SR-57 more crowded. Consideration needs to be made of the impact of trucks and workers that will use SR-196 as a shortcut to SR-57 regardless of the availability of I-69 and SR-196. It is doubtful that many drivers (truck, construction, employees of the IMF) needing to go East on SR-57 to Rossville, Moscow, Somerville, etc. will use any route other than north on SR-196. SR-196 is a minor arterial road with 2 large turns near Old State Line Road and no traffic light at the intersection of SR-57 and SR-196. The impact of future traffic NB on SR-196 was not addressed nor was the impact of increased traffic at the intersections of SR-196/SR-57 or SR-57/US 72.	As discussed in the EA Section 3.3 and the Traffic Impact Studies (on file with TDOT and MDOT), the IMF would not increase truck traffic on SR-57, because the facility access is via US Hwy 72 The major movements are expected to be on US Hwy 72, SR-385, I-69/269, I-240, I-55, and US Hwy 78 to the likely warehouse locations shown on the EA Figure 1-9 in Olive Branch, Capleville, Southaven, Jago, and Memphis. As discussed in the EA Section 1, the IMF is expected to initially have 140 employees. The personnel vehicles from the IMF employees were taken into account in the Traffic Impact Studies (on file with TDOT and MDOT). According to MDOT Traffic Impact Guidelines (approved by TDOT), only the access points, arterials, and intersections where the traffic generated by the facility would be greater than 5% of the access point, arterial, and intersection capacity are required to be studied. Therefore, US Hwy 72 between Red Bank Road and SR-196 along with intersections of Red Bank Road, Industrial Road, Cayce Road and SR-196 were studied. The other intersections / arterials were not studied because the IMF traffic is predicted to be less than 5% of their capacity.

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3.3 Safety	There will be safety issues with more trucks driving along the road where I live. There have been such a high number of accidents in this section. The roads are not even marked properly for passing lanes or anything else in that section.	As discussed in the EA Section 3.18.2, the MS Strategic Highway Safety Plan[44] outlines MS's mission, vision, and goal for prioritizing and coordinating safety initiatives to allow available funding to produce the greatest results in reducing traffic injuries and fatalities. As discussed in the Traffic Impact Study (on file with TDOT and MDOT), the crash data[45] was used in the warrant evaluations for determining the recommended improvements to US Hwy 72 at the intersection of Industrial Road. These improvements for 2015 include: turn lane for right and turn lane for left turning vehicles from Industrial Road; eastbound left turn lane on US Hwy 72; locate the intersection to provide adequate sight distance to the west and east; and acceleration and deceleration lanes on the westbound section of US Hwy 72. These improvements could be made by the private Developer in conjunction with the MDOT Highway Occupancy Permit (HOP).
3.3 Traffic SR-385	The extensive use of SR-385 trucks by entering US 72 was not adequately addressed.	As discussed in the EA Section 3.3 and the Traffic Studies (on file with TDOT and MDOT), the traffic generated by the Memphis Regional IMF would comprise less than 5% of the capacity of the SR-385/US Hwy 72 interchange. Because the IMF traffic is less than 5% of the intersection capacity, according to MDOT Traffic Impact Guidelines (approved by TDOT), the intersection was not required to be studied. As discussed in the EA Section 3.18, SR-385 is a fully controlled 4-lane median divided freeway that currently provides a connection from I-240 in Memphis to SR-57 in Piperton. Construction of SR-385 from SR-57 to I-40 is currently underway and is expected to be completed by 2012.

[44] MDOT, Mississippi Strategic Highway Safety Plan, January 2007.

[45] Provided by the Mississippi Department of Public Safety

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Applicable EA Section / Category	Consolidation of Public Comments	Responses
3.3 Traffic Beyond US 72	The studies do not address where the trucks will go past US 72. Shouldn't the study show percentage of trucks that would access SR-385 E/W, I-269 to I-40 E/W, MS-302, and US 78? The studies do not address how trucks would make a left hand turn from the access road onto US 72. Will there be an overpass or traffic light on US 72? Graphs concerning increased traffic on US 72 were inadequate without supporting numbers. The studies do not say how they weighted tractor trailers differently than car. Obviously, tractor trailers would cause higher impact to traffic and road conditions. The studies do not provide breakdown of vehicle numbers now vs. vehicle numbers when project done, nor does it show the potential increases number of trucks from the project.	As discussed in the EA Section 3.3 and the Traffic Studies (on file with TDOT and MDOT), the traffic generated by the Memphis Regional IMF would comprise less than 5% of the capacity of the SR-385/US Hwy 72 interchange, I-269/69, MS 302 and US Hwy 78. Because the IMF traffic is less than 5% of their capacity, according to MDOT Traffic Impact Guidelines (approved by TDOT), the arterials and intersections were not required to be studied. The Traffic Impact Study (on file with TDOT and MDOT) and its Figures 4A/4B shows the assumption that 20% of the trucks and 10% of the cars leaving the IMF will turn left heading east on US Hwy 72 with the balance turning right to go west on US Hwy 72. The Traffic Impact Study Figures 5A/B shows the predicted vehicle numbers in 2015. The analysis recommended these improvements for 2015: one each turn lanes for right and left turning vehicles from Industrial Road; eastbound left turn lane on US Hwy 72; locate the intersection to provide adequate sight distance to the west and east; and acceleration and deceleration lanes on the westbound section of US Hwy 72. Based on the predicted traffic volumes, a traffic signal was not warranted at the proposed intersection of US Hwy 72 and Industrial Road. All capacity analysis and calculations utilized the appropriate truck percentages and the significant presence of trucks was accounted for in the acceleration/deceleration recommendations and sight distance analysis. These improvements could be made by the private Developer in conjunction with the MDOT Highway Occupancy Permit (HOP).
3.4 Taxes/ Services	The existing infrastructure is far too small, it is too costly, to accommodate what will be needed to enlarge it with our current tax base we have. Property taxes will be going up to support this private project. Cost to local tax payer for road upkeep. Fayette County does not have money to support road maintenance/ improvements for the additional trucks. They do not have adequate fire dept for spills or hazardous materials. There will be a need for extra police force. Cayce VFD never contacted. They will have primary responsibility for all traffic exiting facility in Marshall County.	The social and local community and potential impacts are addressed in the EA Sections 3.4 and 3.18. The IMF will not be paid for by property taxes. To the extent that additional expenditures are required for police, fire and emergency services that might occur as an indirect result of the IMF, the indirect economic growth with the associated increase in tax base would offset these costs. The Traffic Impact Studies (on file with TDOT and MDOT) do not show any requirements for road improvements in Fayette County. As discussed in the EA Section 3.16, the likelihood of hazardous material shipment spills is remote. From 2004 to 2009, the spill ratio for all such shipments handled by NSR was 0.00000156 per container or trailer handled. After the public hearing, the Cayce Volunteer Fire Department (VFD) was contacted for any additional comments/discussion.

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3.4 Property Value	IMF will have negative impact on neighborhood and property values.	The potential land use and social impacts are addressed in the EA Sections 3.1 and 3.4. The indirect and cumulative impacts of the IMF are discussed in the EA Section 3.18. Based on the experience from other IMFs, the property values of existing residential homes may initially decrease during construction; though over the long-term, property value increases.
3.4 Utilities	What type of sewer system will the IMF use?	The sewer connection is addressed in the EA Section 3.12 and 3.16. The IMF restrooms and the material captured during maintenance activities in the oil-water separator from the maintenance pad area of the facility would be disposed of through the Rossville separate sewer system.
3.6 Economic	Tremendously negative impact on the tax base.	The economic benefits from the proposed IMF are in the EA Sections 3.6 and 3.18.4. Based on a regional study, the Memphis Regional IMF would contribute to a projected cumulative economic impact of $2.7 billion by 2020 and to employment growth of 6,186 new, saved, or benefited jobs in the same period. The potential increase in developments drawn to the area could increase the Fayette, Shelby, and Marshall Counties' tax base. The IMF is not expected to result in any negative impacts to the tax base.
3.7 Air	Noxious fumes, poor air quality would result from the proposed use. Concerned about air pollution impacts on area. Jeopardize air quality. There would be an increase in air pollution with traffic congestion at site and on highways of surrounding areas.	Air quality and potential impacts are addressed in EA Sections 3.7, 3.18, and 3.19. EPA has established National Ambient Air Quality Standards for criteria air pollutants, i.e., lead, NO_x, CO, SO_x, ozone, and particulate matter and the facility is designed to comply with applicable requirements to maintain these standards in Fayette County. The Air Quality Technical Report on file with TDOT presents the results of the analysis of potential air emissions and air quality impacts from facility construction and operation. The report indicates the facility would have minimal adverse effect on air quality in the site area, with only minor increases in emission of criteria pollutants and Mobile Source Air Toxics (MSATs) expected. Mitigation would not be required.
3.8 Noise	The noise will impact more than three people. Concerned about noise pollution impacts on a rural area. What about back-up alarms?	Noise and potential impacts from the facility construction and operation are addressed in EA Sections 3.8, 3.18, and 3.19. The Noise Technical Report (on file with TDOT) indicates that the potential impacts from the facility affect three residences, according to FRA and FHWA criteria. The noise study was based in part on results of actual noise monitoring conducted at the NSR IMF in Austell, GA. Although not required by the noise analysis, the Memphis Regional IMF design includes berms along the western edge of the facility and between a section of the lead tracks and Neville Road to reduce noise impacts. Noise modeling in the assessment considered all aspects of equipment noise emissions, including standard back-up alarms. NSR has been testing alternative back-up warning technology to replace the normal beeping type warning system with a more localized type warning system.

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3.9 Historical	No studies have been done at existing sites (in regard to archeological resources).	From May 27 to June 3 and from July 21 to July 24, 2009, archaeologists conducted a Phase I Archaeological Survey for the proposed development. The archaeological survey covered approximately 772.8 acres and consisted of background research, pedestrian field reconnaissance, subsurface testing of the project area, analysis of the materials recovered, and a report of findings. The survey area encompasses large stretches of pastureland, wooded hill slopes, and drainages. The survey area is near or bordered by Parnell Road to the west, the NSR railroad line north of SR-57 to the north, Knox Road to the east and the TN/MS State line, less than 3,000' to the south.
3.12 Natural Resources	There has been insufficient assessment of impacts on stream water quality and wildlife. The proposed land use/development project will likely impair ground water quantity and quality.	The natural resources, potential impacts, and efforts to avoid, minimize, and mitigate these impacts including habitat are addressed in the EA Sections 3.12, 3.18, and 3.19 and the Ecology Report on file with TDOT. The IMF property is 650 acres with 380 acres to be developed, which constitutes a very small percentage of land currently in forest or agricultural use within Fayette County. The project will obtain and comply with applicable permits which protect environmental resources and water quality.
3.12.5 Floodplain	The EA indicates that the area is a "flood hazard area". With the recent flooding events in mind, what does that mean?	Floodplain/stormwater and potential impacts are addressed in EA Sections 3.12, 3.18, and 3.19. The IMF is located outside of the mapped flood hazard area. Pre- and post-construction hydrology will not change substantially due to the project. Impacts to the Zone A floodplain will be avoided, minimized, or mitigated during project design. A No-Rise Certification was provided for the project in the Zone A floodplain.
3.12.6 Aquifer (Lead Tracks)	The Lead Tracks between NSR mainline and IMF are going to be within 500' of my house, approximately 45' in ground. Are they going to pad it with clay like they are the facility? Since sand is approximately 10' below surface.	The majority of the lead tracks are being placed on compacted fill material. Based on the borings taken in the area, the Memphis Sands are not expected to be exposed in this area. If exposed, the lead track areas would be treated the same as the rest of the facility (as detailed in the comment response below and in the EA Section 3.12.6).

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Applicable EA Section / Category	Consolidation of Public Comments	Responses
3.12.6 Aquifer	Damage to the Memphis Sand Aquifer will directly affect residents of Fayette County. Twin Hill Ranch serves as an important recharge area for the region's drinking water source. Proposed site sits upon a delicate water recharge area for the Memphis Sands Aquifer, the regions only source of drinking water. Scientific research clearly demonstrates land uses most harmful to aquifers include paving over land surface (which impedes rainfall recharge).	The Memphis Sand aquifer and potential impacts are addressed in EA Sections 3.12 and 3.18. The aquifer underlies a vast area including parts of KY, TN, AL, AR, MS, LA, and TX. The recharge area underlies over 2,200 square miles in west TN alone. The IMF overlays less than 0.03% of the west TN recharge area. In addition, the IMF will occupy approximately 58% of the entire project area with 42% fallow. The proposed IMF is expected to have no significant impact on the aquifer. Based on available data and study, most recharge occurs in the streams. The facility will be developed primarily in the upland area. Consequently, the relatively small footprint combined with its upland location should not affect the overall recharge in the area. NSR is following all applicable Federal, state, and local regulations for construction and operation of the IMF within the outcrop area. NSR is taking a proactive approach to protect the aquifer by installing a compacted clayey soil layer atop exposures of the sand aquifer that are revealed during grading. NSR would install compacted clay liners in the detention basins to impede infiltration. In the container/trailer parking area, a concrete pad acts as an additional protective barrier for any underlying groundwater resources. The concrete pad and/or clay layer is designed to prevent infiltration in the rare event of a spill.
3.12.6 Aquifer Regulation	You didn't say to absolutely protect it. I don't know of any standards saying what the correct thing is to protect the aquifer.	There are numerous programs specifically directed toward protection of underground aquifers from contamination. These include the Safe Drinking Water Act (SWDA) and its wellhead protection programs; Resource Conservation and Recovery Act (RCRA) and its comprehensive and stringent regulation of hazardous wastes; Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and its Superfund Amendment and Reauthorization Act (SARA) reporting requirements; Clean Water Act spill prevention, control and countermeasures (SPCC) program; DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) hazardous materials transport and response regulations; and Emergency Planning and Community Right to Know Act (EPCRA) and its hazardous substance inventory and reporting requirements. The SWDA, RCRA, and CERCLA regulates activities, which may affect groundwater, and the PHMSA, SPCC, SARA and EPCRA establishes prevention and reporting programs, which prevent spills from reaching groundwater and require reporting of spills whether or not they have potential to reach groundwater. These regulatory programs provide a robust and comprehensive groundwater protection. The proposed IMF will be in compliance with the applicable environmental laws.

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3.12.6 Aquifer Location	Main concern is water in the aquifer. What is the depth/location of the aquifer in this particular area? What's the probability of it being exposed? If they can't figure out where the aquifer is, I'll tell them it's 35 or 40 feet below the surface. Memphis Sand aquifer touches the surface in numerous places on the Twin Hill Ranch; the site for the proposed IMF sits atop the Memphis Sand. The breach protection areas (of the Memphis Sand aquifer) would be modeled after the existing wellhead protection areas, a designated area within whose boundaries no potential sources of contamination could be located.	Memphis Sand and potential impacts are addressed in EA Sections 3.12, 3.18, and 3.19. The potential impacts to soils are addressed in the EA Section 3.13 and 3.19. The Memphis Sand underlies the entire site at variable depth. Lenses or "fingers" of the sands outcrop or reach the ground surface in locations within the site. A Geotechnical investigation of the site included the completion of 79 borings. Based on the borings and the planned elevation of the IMF, the soil type considered representative of Memphis Sand aquifer may be exposed in two locations; at pad tracks 5/6 and the maintenance building. The investigation and construction techniques were shared with Ground Water Institute (GWI) at University of Memphis and TDEC Memphis Environmental Field Office (EFO). Any areas where site grading work exposes the Memphis Sand would be over excavated and covered with 12" thick compacted layer of clayey soil to cap the exposure before continuing with facility construction. The large concrete parking pad on top of any capped exposures would be another protective barrier for any underlying groundwater resource. A spill would have to traverse the paved area into the storm drains and escape from clay-lined basins with shut off valves in order to enter the environment, which is extremely unlikely to happen. These multiple layers are designed to prevent infiltration while NSR performs clean-up of undesirable material in the rare event of a spill. The project will obtain and comply with applicable NPDES permits to insure stormwater discharges meet water quality standards. Appropriate BMPs would be used to prevent erosion, control sediment movement, and stabilize disturbed soil.
3.12.6 Wells	We don't want it at the risk of hundreds of thousands of people's drinking water. Will the project affect area shallow drinking water wells (Rossville, Knox Road)? Local residents on shallow well water will be most affected by water degradation. The issue of protecting the water supply was not adequately addressed. Potential water pollution (let's get pro-active, not reactive).	Water wells and potential impacts are addressed in EA Sections 3.12 and 3.18. The IMF will not affect area water wells or the quality of drinking water. Residential water wells are present around the project site along Knox Road, Neville Road, and SR-57. As reported by TDEC Ground Water Management Section, these wells are relatively shallow on the order of 90-150' deep. Based on topographic relief in the area and on the planned elevation of the facility, the screened well intervals should be 80 to 150' below the planned IMF elevation. The Town of Rossville obtains its water from three groundwater wells ranging from 90-102' deep. The Town of Collierville's water supply is taken from eleven deep wells pumping from 350' and 600'. Piperton obtains its water from Collierville. Rossville and Collierville both have a Well-Head Protection Program and Well-Head Protection Plan. The maximum Wellhead Protection zone per TN Public Water Supply Rule (1200-5-1-.34) is 750', which does not extend into the footprint of the proposed IMF. As discussed in additional detail in Section 3.12.6 and Section 3.13, NSR has proposed construction techniques that would provide protection to the underground water sources during construction and operation of the facility.

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3.12.7 Stormwater	Basins used to capture the water should have extra capacity for flash floods and hurricane type weather. We cannot predict rain volume. The paving over and making impervious the land surface will inhibit recharge to the aquifer and will dramatically alter-surface water drainage.	Floodplain/stormwater and potential impacts are addressed in EA Sections 3.12, 3.18, and 3.19. Pre- and post-hydrology would not change significantly due to the project. Permanent basins are designed for a 100-year storm, which exceeds local regulation of 25-year design storm. Temporary basins are designed for a 2-year, 24-hour storm in accordance with TDEC requirements.
3.12.8 Endangered Species	The EA identifies 3 State Listed Species within 4 miles of the IMF project site with “no known at this time" When will it be known if some of these species are present? The website for the TN Natural Heritage Program for Rare Species has 3 invertebrate animal species listed, 7 vascular plant species listed, and 6 vertebrate animal species listed in Fayette County yet only 3 are identified in the EA. Is it not possible that Aimophila aestivalis, Bachman's Sparrow, which nests on the ground in dense cover, is in the area? What about the Sorex longirostris, Southeastern Shrew or Zapus hudson jus, Meadow Jumping Mouse? Why were they left off the EA's list? If they are present, will they be lost by the IMF project? Why does the EA state "No Adverse Effects" for State Listed species and shows for Federally Threatened or Endangered Species "None On-site". How was this determined? How can this kind of blanket statement be made?	Threatened and endangered species and potential impacts are addressed in EA Section 3.12. TDEC, TWRA, and FWS reviewed and concurred with the finding of the EA that there are no anticipated impacts to threatened or endangered species. Project impacts on state-listed (and Federally listed) species would not be expected to extend beyond the facility footprint with possible exceptions as noted in the EA. As noted in Section 3.12, based on input from the TDEC Natural Heritage Program on June 24, 2009, the site was evaluated for state-listed and Federally-listed species known to occur within the area in the vicinity project, utilizing the Tennessee Natural Heritage Program Rare Species Observations for Fayette County. The EA Section 3.12.8.1 describes these species and the survey information for these species. With respect to state listed and Federally listed species, presence of the Sorex longirostris, Zapus hudsonius, and Aimophila aestivalis were not observed and therefore are not known to be present at the site. As the project site is similar in nature to surrounding areas and does not contain specifically unique habitats, it is not expected that these species’ populations would be adversely impacted. Some loss of wildlife would be expected to occur during construction and operation of the project. Based on available habitat, site reconnaissance, and FWS correspondence, no Federally-listed species would be expected to be found on-site. Therefore, it was determined that there are no adverse effects to Federally-listed threatened and endangered species. As recommended by TDEC Natural Heritage Program, NSR will minimize the potential effects to flora and fauna by maintaining riparian buffers along streams, where practicable, and implementing a stormwater management system during both construction and operation of the facility. To further enhance habitats within the facility, NSR will use appropriate revegetation techniques to stabilize slopes and to help prevent the establishment of invasive exotic plants, as listed by the TN Exotic Pest Plant Council.
3.12.12 Permits	There is no proven precedent that the mitigation plan of debiting at a 2:1 ratio would keep our water quality from degradation.	The impacts and proposed mitigation are addressed in EA Sections 3.12, in Concurrence Point #4, Section 5, and in the TDEC and USACE permit applications. Impacts to wetlands and streams will be mitigated as required by the USACE and TDEC through the permitting process. The proposed stream mitigation is based on ratios outlined in “Stream Mitigation Guidelines for the State of Tennessee” (July 1, 2004). The proposed wetland mitigation is through a wetland bank in the same watershed.

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3.14 Visual	Concerned about visual impacts on area/aesthetics.	Visual/lighting and potential impacts from the facility operation and construction are addressed in EA Sections 3.14, 3.18, and 3.19. Visual impacts off the IMF site from lighting will be avoided, minimized or mitigated during project design. Light poles and fixtures will be required within the container and trailer loading areas and at rail switches along the lead tracks. Lights within the yard area will be on 70-foot tall poles as opposed to the standard 100-foot tall poles. Lights outside the yard area will be on standard 40-foot tall street poles. The fixtures will direct light downward. The downward directing lights would create illumination of less than 0.5 foot candle along the IMF boundary; average light level within the facility ranges from 2-5 foot candles, EA, Figure 3-20.
3.14 Scenic	How will the project affect the scenic designation of SR-57?	The project will not affect the scenic designation of SR-57. The scenic designation limits new outdoor advertising such as billboards. The Memphis Regional IMF will not be constructing advertising signage along SR-57 and therefore, will not be affecting its scenic designation.
3.16 Hazardous Materials (Amount)	About two million deliveries a year will be made, and that only a minimal of like three or four percent would carry hazard materials. If you do the math, that's 60 or 70 or 80 thousand deliveries of hazardous materials. To me, that is not a minimal amount of hazardous material.	Hazardous materials and potential impacts are addressed in the EA Sections 3.16 and 3.18. The Memphis Regional IMF is projected to handle 327,000 lifts per year. Between 3-4% of the containers and/or trailers transported by NSR through its intermodal facility contain materials that are considered hazardous. Department of Transportation's (DOTs) list of materials considered hazardous includes items such as paint, liquids that are flammable or corrosive, batteries, materials under pressure such as gases and fire extinguishing equipment, and some auto parts including air bags. Many of these materials classified as hazardous are consumer products that require additional protective packaging for transportation under DOT PHMSA requirements. NSR does not transport the following items intermodally: toxic inhalation hazards, asbestos, and certain types of explosives, radioactive materials, and spontaneously combustible materials. During the period 2004 through 2009, NSR intermodal transported 16,070,989 intermodal units. The spill ratio for shipments was 0.00000156 per container or trailer handled (25 spills in 5 years with 17 of the spills being less than 1 gallon). Accordingly, spills involving intermodal shipments are extremely rare and typically involve small volumes. NSR has emergency response personnel on call at all times to respond to spills or releases and accordingly the risk of a spill affecting groundwater or off-site areas is extremely low.
3.16 Hazardous Materials (Inspections)	How frequent and accurate are cargo inspections to ensure that there are no hazardous materials in the containers that the trains will carry and the trucks will deliver.	Before freight is accepted for transport, shippers of hazardous materials are required by Federal law to classify the material, describe the material in shipping papers, meet DOT packaging requirements, ensure the freight is marked and labeled as required, and ensure that the freight is in proper condition for transportation. Federal regulations specify packaging and container requirements. The DOT has a comprehensive program for shipment of hazardous material which includes inspection requirements and strict enforcement.

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3.16 Hazardous Materials (Warning)	Will there be an alarm system installed to warn area residents when a spill occurs? What about NSR's past history in major spills requiring evacuations, i.e. Graniteville SC spill?	Hazardous materials are addressed in the EA Sections 3.16 and 3.18. The types of materials that could require evacuation of the surrounding area are forbidden by NSR from being shipped in intermodal containers and trailers. These forbidden items include toxic inhalation hazards, asbestos, and certain types of explosives, radioactive materials, and spontaneously combustible materials. NSR will have a spill response plan for the facility and will coordinate that plan with local emergency responders, as appropriate, but, an audible warning system is not planned. Any spills of hazardous substances in quantities deemed to be harmful and exceed a reportable quantity are required to be reported immediately to local emergency planning committee, state emergency response commission, and National Emergency Response Center by law. These authorities immediately invoke local, state, and national emergency response measures and resources appropriate to a particular spill situation. The Graniteville, SC, spill did not involve intermodal shipments and did not occur in an IMF.
3.16 Hazardous Materials (Spills)	Potential ground water contamination in the event of a spill. No emergency spill plan. If poison is spilled, it will eventually permeate, it will go through clay, it will go through concrete and make its way to the aquifer. The truck and train traffic, plus contents of containers, pose contamination sources that would directly reach the Memphis Sands aquifer.	Hazardous materials and potential impacts are addressed in the EA Sections 3.16 and 3.18. Only a very small percentage of the commodities moved through the IMF will be classified "hazardous" and spills of material are expected to be rare and small. If a spill occurred, it would most likely be contained and cleaned on the paved areas within the facility. Spills would be reported as required. If not contained on an impervious surface, the spill would be collected in the storm drains, which are collected within permanent basins. The basins would be clay-lined with shut-off structures, which can be closed as needed. In addition, the facility would have a site specific Spill Prevention Control and Countermeasure Plan (SPCCP) as required by the Clean Water Act. On an annual basis, NSR typically transports approximately 2.2 to 2.7 million shipments or containers through their existing IMFs across the eastern United States, of which only 3 to 4 percent contain hazardous materials. During the period 2004 through 2009, NSR intermodal transported 16,070,989 intermodal units. During that same time there were 25 spills from intermodal units inside IMFs, or 0.00000156 per container or trailer handled. Additionally, the trend has been toward fewer spills each year (2004-10, 2005-5, 2006-2, 2007-4, 2008-1 and 2009-3). Of these 25 spills, 17 were one gallon or less in size and only one spill was over 25 gallons. Accordingly, spills involving intermodal shipments are extremely rare and typically involve small volumes.
3.16 Hazardous Materials (Chemicals)	Did the study address every single chemical that will be transported through the yard? If not, then the study is incomplete. All hazardous materials are not in tanks.	The DOT hazardous material regulations comprehensively regulate hazardous material shipments and classify all chemicals transported by rail into categories of hazardous materials. These categories are addressed in the EA Section 3.16. The IMF will comply with all applicable DOT regulations pertaining to hazardous materials.

Table 6: Consolidated Public Comments and Response

Applicable EA Section / Category	Consolidation of Public Comments	Responses
3.16 Hazardous Materials (Equipment)	What about maintaining IMF equipment and the spill associated with these activities? What about leaks from truck and/or trains parked or idling in the facility?	Stormwater and Hazardous Materials and their potential impacts are addressed in the EA Sections 3.12, 3.16, and 3.18. Maintenance and fueling activities from IMF equipment would occur within the maintenance pad area. This area includes 7 above ground storage tanks (ASTs) ranging in size from 300 to 3,000 gallons.[46] The larger AST would store diesel fuel with the other 6 holding gasoline, motor oil, anti-freeze, transmission oil, used oil, and hydraulic oil. Material captured from the maintenance pad area during maintenance activities would be collected in the oil-water separator and discharged through the Rossville sewer system. In the unlikely event of a spill from these activities, emergency protocols in the site specific spill prevention control and countermeasure (SPCC) plan for response and recovery would go into immediate effect. A variety of emergency response resources also would be available as necessary, including facility personnel, local, state and Federal emergency responders as well as emergency response contractor resources. EPA considered regulation of stormwater from transportation facilities, which includes IMFs. Their review indicated that level of pollutants from areas not involved with vehicle maintenance and vehicle cleaning (or airport deicing) did not warrant pollutant control measures under the NPDES permit program. Therefore, the trucks or trains parked or idling in an IMF do not require pollutant control measures under the NPDES program as they do not present contamination risk. Releases of oil or hazardous substances in amounts that may be harmful are required to be reported and appropriate response measures taken. Trucks picking up or dropping off containers/trailers at the IMF would be processing thru the IMF in an average of 25 minutes. Accordingly, the likelihood of leaks from trucks parked or idling in the facility is minimal.
3.18 Indirect / Cumulative	How is the potential construction of distribution building, truck stops, etc. going to affect the area? Land zoned residential estate around the site. The IMF will hinder high end development. The IMF will kill any future urban and housing development. Is Memphis and surrounding area going to become one large RR yard?	The cumulative impacts of the IMF are discussed in the EA Section 3.18, including some of the potential activities of the Developer and the anticipated growth of the Chickasaw Trails Industrial Park and other areas. Development is controlled through the local governments. Fayette County has an urban growth plan and a zoning board for planning and growth regulations. The Towns of Rossville, Piperton, and Collierville have defined urban growth boundary (UGB) and zoning boards for planning and growth regulations. Marshall County has zoning regulations. The property to be used for Build Alternative 1 is within the Rossville UGB and zoned industrial, Figure 3-1 and the Developer's property in Marshall County has been zoned commercial/industrial as part of the Chickasaw Trails Industrial Park.

[46] Per 40 C.F.R. Part 112, ASTs must have secondary containment adequate to contain full amount of the tank contents, applicable inspection, testing and spill detection measures.

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3.18 Indirect Traffic	Has anyone considered or done any transportation studies as to whether secondary growth would be around the facility and what the impact around transportation would be? No mention of highways other than US 72, no mention of congestion on Byhalia Road, Knox Road, SR-196, or SR-385. I-269 maybe not finished before project done. The TDOT website has no completion date listed for section 9 of I-69 (through northern MS and Western TN specifically Shelby and Fayette Counties). How soon after the IMF is completed and operational will I-69 be able to relieve the traffic load on the already crowded TN interstate system? The section of SR-385 from SR-57 to N SR-193 is scheduled to be completed in 2013, according to the TDOT website. Will this be before or after the completion and beginning of operations of the IMF?	The indirect and cumulative impacts of the IMF are discussed in the EA Section 3.18. An assessment of indirect transportation effects related to the IMF was conducted and is documented in the *Analysis of Projected Traffic and Impacts in the Vicinity of the Intersection of U.S. Highway 72 and Industrial Road* (on file with TDOT and MDOT). This traffic assessment includes impacts on Knox Road and SR-196. Byhalia Road and SR-385 were considered outside the study area because the IMF traffic is less than 5% of their capacity, according to MDOT Traffic Impact Guidelines (approved by TDOT), the arterials and intersections were not required to be studied. The EA Figure 3-23 shows the segment information for SR-385. The last segment of SR-385 was in the TDOT September 2009 letting with an estimated completion date of September 2012. The IMF is not expected to directly increase traffic on SR-57, due to no direct access. TDOT is sponsoring a study of traffic impacts on the broader highway network, including an assessment of other improvement projects already scheduled. Figure 3-24 shows the proposed location of I-269. Neither MDOT nor TDOT has released a construction schedule for I-269, respectively. MDOT has programmed the widening of US 72 for construction to begin in 2012.
3.19 Construction	Will the construction of the IMF cause delays on the already busy SR-57?	The indirect impacts of the overpass construction are discussed in the EA Section 3.18 and 3.19. A temporary bypass would be established to allow traffic to move along SR-57 during construction of the overpass. The construction of the IMF would have only temporary effects on traffic on SR-57 as the majority of equipment and materials moved by truck will enter the facility from US Hwy 72. Any materials supplied by train would enter the facility by crossing SR-57 temporary bypass at grade.
3.19 Construction	What agency is going to verify that any exposed Memphis Sand is capped? Who's the inspection authority? Or is it just self-inspected? How you will determine that you have, in fact, penetrated into an outcrop area? Who will make that decision?	The potential construction impacts of the IMF are discussed in the EA Section 3.19. NSR has made commitments to use special construction techniques to protect any exposures of Memphis Sand that occurs during site grading and NSR will have personnel on site during construction who are familiar with the Memphis Sands. The personnel will identify and assure appropriate actions are taken to address any potential exposures. The project would be required to obtain an Individual NPDES Construction Permit from TDEC. The permit requirements and provisions will be followed.

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Applicable EA Section / Category	Consolidation of Public Comments	Responses
3.19 Construction	Water, which drains from the site, is not captured or tested. Testing should be done by independent testers.	Floodplain/stormwater and potential impacts are addressed in EA Sections 3.12, 3.18, and 3.19. Both temporary and permanent basins will be used on site to collect and treat stormwater from the site. The project would be required to obtain an Individual NPDES Construction Permit. As part of the individual permitting process, the site specific SWPPP would be developed including a detailed monitoring plan with quality control and reporting requirements. The permit requirements and provisions will be followed to meet water quality standards. Under the Federal Clean Water Act, self-reporting and analysis certified by the appropriate entity responsible for compliance is appropriate.
NEPA Process	Why is Norfolk Southern paying for the environmental study? Should an independent company be hired by TDOT and MDOT to make a study? Please conduct environmental studies that are NOT done by NSR. This is an obvious conflict of interest.	NSR, through its consultant, is providing technical support and assistance for information necessary for an EA. The EA was independently reviewed, edited, and compiled by the cooperating and participating agencies, as well as the FRA and FHWA. Use of a consultant to assist in preparation of technical documentation is common practice under NEPA and consistent with CEQ guidance and regulations. Reviews by all cooperating and participating agencies along with the public should provide a fair EA of the project and any final determinations made regarding the NEPA documentation or projects are the purview of the lead agencies.
NEPA Process	Request an Environmental Impact Statement (EIS) be completed instead of an Environmental Assessment (EA).	In the NEPA process, a review moves from an EA into an EIS if the analysis determines there is a significant environmental impact. For this EA, the following technical studies were completed: Phase I Environmental Site Assessment, Traffic Impact Study, Phase I Archeological Survey, Architectural Historic Survey, Ecology Report, Noise Report, Geotechnical Investigation, Air Quality Technical Report, and Analysis of Projected Traffic and Impacts in the Vicinity of the Intersection of U.S. Highway 72 and Industrial Road. Based on the analysis, there were no significant impacts.
NEPA Process	Because the project is receiving ARRA TIGER funding, an EIS is required if a private entity uses Federal authorization or funding.	As discussed in the EA Summary and Section 1.0, in February 2010, Tennessee was selected to receive funds to support the development of this project from the U.S. Department of Transportation (DOT), Transportation Investment Generating Economic Recovery (TIGER) Program as part of the American Recovery and Reinvestment Act (ARRA) of 2009. As a result of this Federal funding, the proposed Memphis IMF project is subject to the requirements of the National Environmental Policy Act of 1969 (NEPA). The EA has been prepared to meet those NEPA requirements.[47]

[47] FRA NEPA requirements at 64 Fed. Reg. 28545 (May 26, 1999); FHWA NEPA requirements at 23 C.F.R. 771.

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4 Agency Involvement	MS people did not come, TN people said they could not discuss. MS representatives were no show.	The public participation process is outlined in EA Section 4 and in the Coordination Plan on file with TDOT and distributed to local, state and Federal agencies with authority or responsibility over potentially impacted resources. In addition to the NEPA Public Information Meeting, local and governmental meetings were held to discuss the project. As identified in the EA Section 4, MDOT is a cooperating agency in the development of the EA. Due to scheduling conflicts MDOT and other agencies involved in the development of the assessment could not attend the Public Hearing; however, it is uncommon and often not feasible for each involved agency to attend all public meetings for a project. MDOT was at the Public Meeting in October 2009 and provided comments to the Draft EA as well as providing substantive guidance regarding the effect on MS resources including transportation.
Funding	Taxpayers should not have to pay for this infrastructure of the SR-57 overpass that will only benefit a privately traded company. The project is not fully funded, who will pay shortfall and over budget costs. Concerned about the government facilitating this project with tax dollars.	Various governmental agencies recognize that the facility will bring substantial public benefits in the form of local jobs and economic growth, and by transferring more long distance freight from highway to rail. NSR is contributing a significant (~36%) share of the project cost, but cannot alone financially justify the entire project. Using public funds to develop infrastructure to move freight is not a new concept as highways and roadways used by trucks across the nation are funded from tax receipts. In addition to NSR funds, due to the employment, economic, and other public benefits the project will bring, the construction of the IMF has been awarded economic stimulus funding from the Federal government. The potential increase in development drawn to the area could increase the effective tax bases in Fayette and Shelby Counties, Tennessee, and Marshall County, Mississippi and as noted in the EA Section 3.6, would promote economic development in the region. The long-haul trucks removed from state highways will reduce state highway maintenance and construction costs. Funding to pay for the entire cost of the project has been identified to the DOT. In the event of cost overruns, NS will either contribute more funding or reduce the initial size of the Memphis Regional IMF.