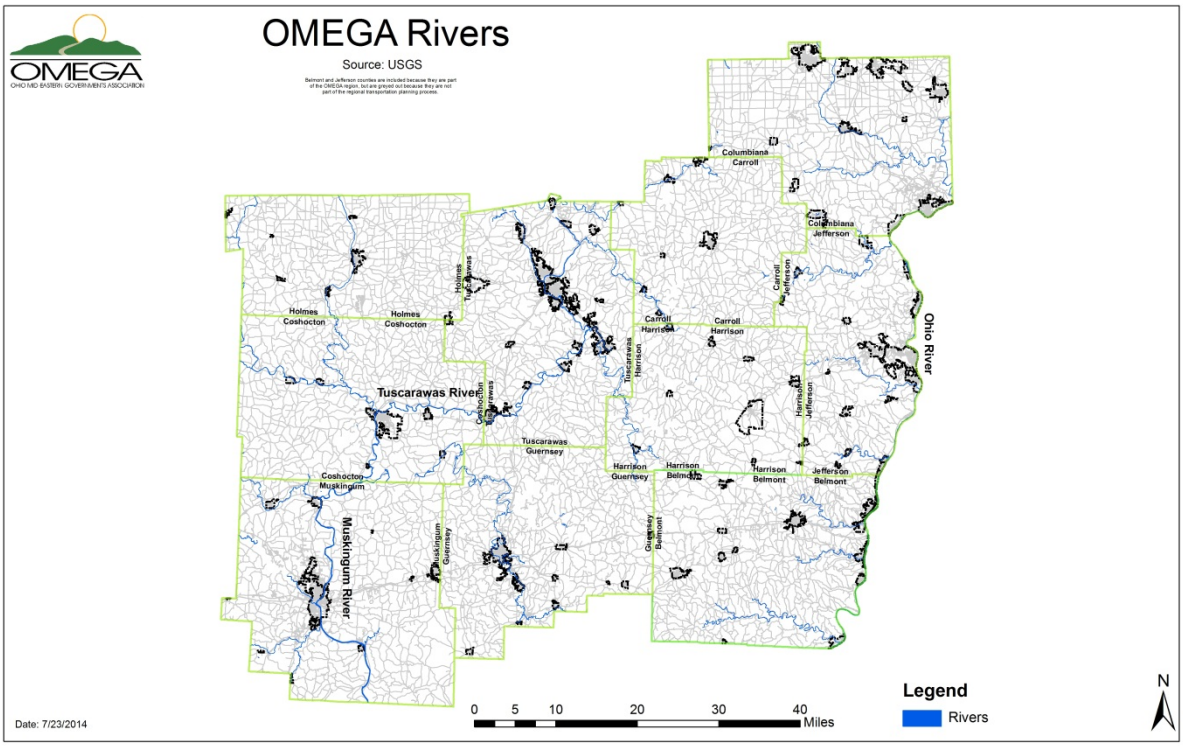
Section 3.6 Rivers and Ports

There are three major rivers (see Figure 3-26) that run through the OMEGA study area: the Ohio River, the Muskingum River, and the Tuscarawas River. A brief description of these rivers as related to the transportation system, as well as an overview of the ports and terminals along the Ohio River in Columbiana County is provided in this section.

Figure 3-26: OMEGA Rivers



3.6.1 Ohio River

The Ohio River is a primary shipping channel for the region, state, and nation and is also used for recreation. The Ohio River is one of the major shipping conduits in the nation, connecting the Gulf Ports to the Great Lake Ports. There are multiple dams and locks to help navigate the grade change over the course of the river, including one in the study area at the New Cumberland Lock at River Mile 54.3. Recreational users have to be cognizant of these areas as well as the major shipping enterprises on the river. Three counties within the OMEGA region, Columbiana, Jefferson, and Belmont, have direct access to the Ohio River. However, only Columbiana County is included in the RTPO. Coordination with BHJ and Bel-o-mar is expected so that the region can fully benefit from this major asset. As the shale development continues, use of the Ohio River for shipment of materials and products is expected to dramatically increase.

3.6.2 Muskingum River

The Muskingum River is the longest navigable river lying wholly within Ohio. The Muskingum River is formed by the confluence of the Tuscarawas and Walhonding Rivers in Coshocton and extends to Marietta and the Ohio River. Historically, the Muskingum River has served as a transportation corridor to and from the Ohio River. Today, the Muskingum River is primarily used for recreational purposes (fishing, boating, and other leisure activities) and extends through two counties that are in the OMEGA RTPO planning area, Coshocton and Muskingum Counties. There are ten dam and locks along the Muskingum River three of which are located in Muskingum County. With the exception of the Ellis Lock and Dam #11 in Muskingum County, all locks and dams are fully functional and still operated by hand. The Ellis Lock and Dam is closed and needs to be repaired. Based upon an estimated $5 million dollars cost to repair the facility, the Ellis Lock and Dam is expected to remain closed indefinitely.

The Muskingum River Advocacy Council hopes one day that the Ellis Lock and Dam will be repaired and opened in order to once again open the transportation corridor from Coshocton to the Ohio River. This will not only expand recreational and tourism opportunities along the Muskingum River, but potentially open the river for limited commercial use and quarter barges.

The 160-year old navigation system of the Muskingum River was designated a National Historic Civil Engineering Landmark by the American Society of Civil Engineers in 2001 and in 2006, the Muskingum River lock system was designated the first Navigation Historic District in the United States by the National Park Service.

3.6.3 Tuscarawas River

The Tuscarawas River begins in Summit County and extends through Stark, Tuscarawas, and Coshocton Counties before joining with the Walhonding River to form the Muskingum River. The Tuscarawas River was an integral part of the Ohio Erie Canal System. Today, the Tuscarawas River is used primarily for recreational purposes, such as, fishing, boating, and other leisure activities including an annual canoe and kayak race in Dover. The Ohio Erie Towpath Trail and other trails are being coordinated with river access to expand recreational opportunities in Tuscarawas County. Public access for boats is currently provided in the Villages of Tuscarawas and Gnadenhutten in Tuscarawas County and at the SR 751 Bridge in Coshocton County, northeast of the Village of West Lafayette. The City of Dover has applied for funding to create a public launch upstream of the dam below the Tuscarawas Avenue Bridge.

3.6.4 Ports

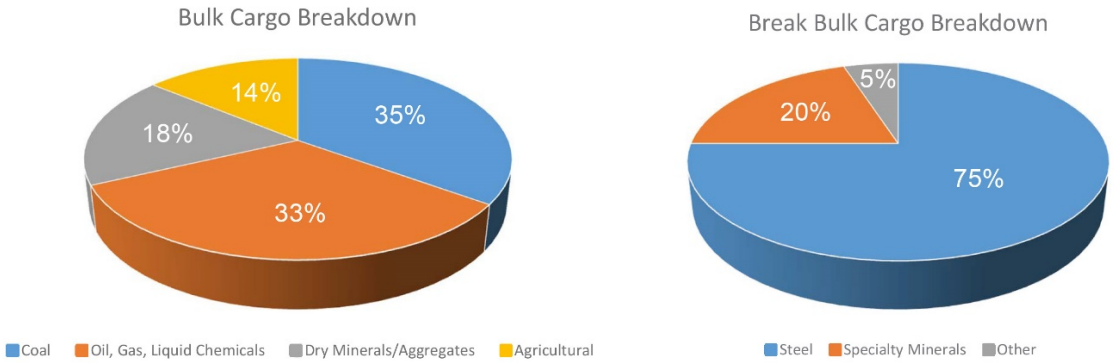
With Northeast Ohio and the Cleveland-Pittsburgh corridor being among the top manufacturing regions in the country and the world, the River System is a critical cost effective transportation corridor for these industries. In general, the cost for transportation over inland waterways is three times lower than other modes of transportation (rail and truck), resulting in a potential savings of $7 billion nationwide.

The Ohio River System connects the Midwest ports to the Mississippi River and the Gulf ports of Mobile and New Orleans. The Ohio River accounts for one-third of all U.S. commercial transportation by tonnage per year and the system as a whole moves more cargo than the Panama Canal.

For the OMEGA RTPO study region, there is only one pool in the Ohio River Navigation System. The New Cumberland Pool begins at River Mile 40, at the Pennsylvania state line, and ends at River Mile 54.3, in Stratton, Ohio at the New Cumberland Locks and Dam. Within Columbiana County, there are 11 river terminals that can be used for the shipment of goods along the river. All but two of these terminals are owned and operated by private individuals or corporations. The two remaining terminals are owned and operated by the Columbiana County Port Authority at River Miles 49.4 and 49.7. The Columbiana County Port Authority also operates the Wellsville Intermodal Park, a 70 acre facility that connects all modes of commercial transit, rail, road and water. The Intermodal Park is designated as part of Foreign Trade Zone #181.

Approximately 15 million tons of cargo originates or is destined to be shipped within the New Cumberland Pool. Cargo composition is broken down to 62% Bulk Cargo, 30% Break Bulk and 8% Project Cargo. As shown in Figure 3-27, coal, oil, gas, and liquid chemicals account for 68% of the bulk cargo that is shipped and steel accounts for 75% of the break bulk cargo that is shipped. The Project Cargo includes heavy equipment and machinery that will be used in a multitude of projects.

Figure 3-27: Cargo Breakdown



The following is summary of the ports and terminals within the New Cumberland Pool. This summary is from the 2040 Metropolitan Transportation Plan developed by the Eastgate Regional Council of Governments (April 2013). The location of these facilities is provided on Figure 3-28 and the numbers on Figure 3-28 correspond to the facility number listed herein.

Intermodal Park – Wellsville, Ohio – Foreign Trade Zone #181

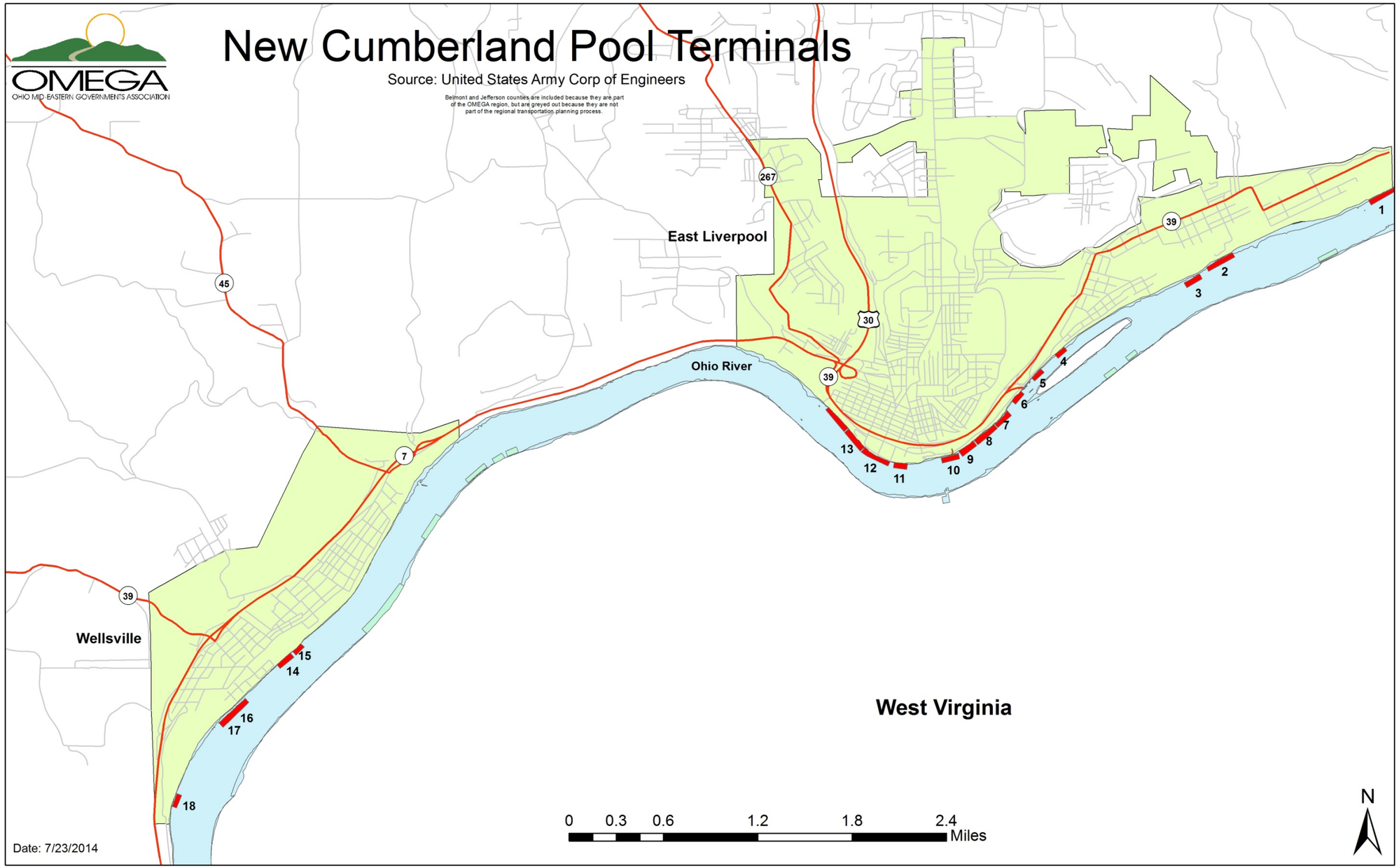
Located at River Mile 49.4, the Intermodal Park is one of the main connecting points to the Gulf ports in the South and the Great Lake ports in the North. The Park is located off of State Route 7, a four lane highway, and is 40 miles North of Interstate 70 and 40 miles South of Interstates 76/80. This allows the facility to be located within a one day drive of 5 of the United States 6 largest population markets. Also

on site is a 3,500 foot expandable rail siding that connects to the Norfolk Southern mainline. The 70 acre riverside terminal has a 60 ton overhead river crane and bulk cargo handling system with ready access to both rail and highway. Across from SR 7, there is 2,000 acres of developable land for expansion.

New businesses have taken up contracts with the facility recently. Arrowhead Utica Pipeline LLC of Houston signed a $5 million, 99 year lease to build pipelines from the Utica shale fields to the industrial park. Marathon Petroleum Company spent $2.4 million to develop 3.6 acres for a holding area for trucks hauling "wet" natural gas from the Utica shale. Drivers will use the land to park their trucks while waiting to offload their cargos into one of four 2.5 million gallon holding tanks.

Cimbar Performance Materials, based in Georgia, expanded its barite processing line at the industrial park with a $6.5 million investment, and planned to hire 27 workers in addition to the current 34 employees. The facility will produce customized mineral products in the specialty talc, calcium carbonate and magnesium hydroxide product lines. This expansion increases Cimbar's capacity to 650,000 tons. Additionally, Cimbar formed a joint effort with Anchor Drilling Fluids USA Inc. to process the drilling fluid used to lubricate drills during deep drilling.

Figure 3-28: New Cumberland Pool Terminals



EAST LIVERPOOL TERMINALS

1. **S. H. Bell Co. docks**
   This convenient location consists of two separate warehouse sites, State Line and Little England, and a centrally located office that services both facilities. The State Line site is a U.S. Customs bonded warehouse. Both sites operate as storage, transfer, and warehousing facilities capable of processing, crushing, screening, and packaging of materials.

   State Line Facility
   The State Line site is located off of SR-68 in Midland, PA on the northern bank of the Ohio River. The site covers about 92 acres of land, about ½ of which is located in the State of Ohio. The site uses 28 covered storage and processing buildings and extensive outside asphalt and concrete storage pads for storing bulk and packaged materials.

   Purpose: Receipt of ferroalloys, ores, fluorspar, refractory materials, gypsum rock, and misc. bulk commodities.

   Ohio River Mile: 40.4

   Shipments: Unknown

   Container Handling: No

   Largest Berthing: 1100' **Total Berthing:** 1100'

   Construction: 2 steel sheet-pile, cellular crane platforms extending from shore, each with concrete-surfaced solid fill and 35'x20' approach; and row of 9 steel sheet-pile, solid-filled cellular breasting dolphins in line with faces, 5 with 50'x3'steel approaches. 2 stacked barges in bank on lower side are located approximately 50'in rear of face.

   Mechanical Handling: 2 – 125 ton diesel crawler cranes, each equipped with a 125' boom with a 3½ cubic yard bucket, average unloading rate per crane 250 tons per hour; and 1 – 75 ton diesel-hydraulic crawler excavator with 3½ cubic-yard bucket equipped to handle supersacks and bulk material. 16 diesel front-end loaders with ¾ to 5 cubic-yard buckets; and 15 – 2½ ton diesel forklift trucks serve open storage area.

   Remarks: S.H. Bell Co.: 100 acres of concrete and asphalt surfaced open storage area; 26 steel frame, metal-covered, concrete and timber-walled warehouse buildings; a total of 451,000 sq. ft. of storage area with 3 processing plants is located at rear. CNC Marine of Georgetown, PA: operates fleeting area at lower end with a capacity for mooring 6 barges in 2 tiers, each 3 barges wide. Terminal straddles the Ohio-Pennsylvania state line.

   Rail Connection: 1 platform-level track serves warehouse, loading platform, and under-track pit and loading conveyor at terminal in rear; connects with Norfolk Southern Railway.

   Highway Connection: Via terminal roads, asphalt, various widths from Pennsylvania SR-68 and Ohio SR-39, respectively, asphalt, 24' wide.

2. **Little England Facility**

The Little England site is located off of St. George Street in East Liverpool, Ohio on the northern bank of the Ohio River. This site covers about 8.5 acres of land with 3 covered storage and processing buildings, and has outside concrete storage pads for storing bulk and packaged materials.

Purpose: Receipt of ferroalloys, ores, fluorspar, refractory materials, gypsum rock, and misc. bulk commodities.

Ohio River Mile: 41.2

Shipments: Unknown

Container Handling: No

Largest Berthing: 650' **Total Berthing:** 650'

Construction: Natural bank with shore moorings; and steel sheet-pile, cellular crane platform with solid fill. Row of 3 steel sheet-pile, solid-filled cellular breasting dolphins in line with face.

Mechanical Handling: 1 – 90 ton diesel crawler crane with 80'boom, equipped with 3 cubic-yard bucket; unloading rate 250 tons per hour. 3 diesel front-end loaders with ¾ to 5 cubic-yard buckets; and one 2½ ton diesel forklift truck.

Remarks: Approximately 6 acres of concrete surface open storage area; 2 steel frame, metal-covered timber walled warehouse buildings encompassing a net area of 65,000 sq. ft. are located at rear.

Rail Connection: None.

Highway Connection: Walter Street, asphalt, 20' wide Holiday Street/Oakland Avenue, each asphalt, 20' wide

Receiving and Shipping

Receiving and shipping of materials at both sites is accomplished through 3 modes of transportation:

- **River Barge:** The State Line site has 3 loading and unloading river docks equipped with 2 cranes and 1 hydraulic backhoe. The Little England site has 1 loading and unloading river dock equipped with a crane.

- **Truck:** The State Line site uses 6 van/container docks -the Little England site uses 1 van/container dock with no restrictions on flatbed capability at both sites.

- **Railroad:** The State Line site uses a 30-car siding for handling hopper-cars, boxcars, gondolas, and flatcars with a Norfolk Southern connection.

Material Drying System
The State Line site operates a Material Drying System capable of drying materials in accordance with customer moisture requirements.

3. COLUMBIANA COUNTY PORT AUTHORITY, LITTLE ENGLAND WHARF 1250 ST. GEORGE STREET, EAST LIVERPOOL, OHIO

Purpose: Not used.

Ohio River Mile: 41.4

Shipments: Domestic Only

Container Handling: No

Largest Berthing: 800' **Total Berthing:** 800'

Construction: Natural bank with shore moorings; and steel-sheet-pile bulkhead with solid fill. 2 steel sheet-pile, concrete-capped, solid-filled cellular breasting dolphins in line with face.

Mechanical Handling: None.

Remarks: Columbiana County Port Authority plant and office buildings are located at rear.

Rail Connection: One surface track at rear; connects with CSX Transportation, Inc.

Highway Connection: Railroad Street, asphalt, 15' wide
Virginia Avenue, asphalt, 28' wide
SR-39, asphalt, 24' wide

4. D. W. DICKEY & SON, EAST LIVERPOOL WHARF
700 RIVER ROAD. EAST LIVERPOOL, OHIO

Purpose: Receipt of sand, gravel, and dry bulk fertilizer.

Ohio River Mile: 42.4

Shipments: Domestic Only

Container Handling: No

Largest Berthing: 300' **Total Berthing:** 300'

Construction: Steel sheetpile, cellular crane platform with solid fill; and three steel-breasting dolphins in line with face.

Mechanical Handling: 1-100 ton diesel crawler crane with 100' boom, equipped with 4 cubic yard clamshell bucket, unloads material into storage bins at rear, rate 125 tons per hour. One 2 1/2 cubic yard diesel front-end loader serves 3 hoppers, serving a 30"electric belt conveyor extending to dry-mix concrete plant in rear.

Remarks: 3 concrete walled bins with capacity for 3,500 tons of sand and 3,500 tons of gravel are located on apron. Fertilizer is transported by truck to 7 timber-roofed warehouse buildings with concrete walls at 1080 Elmwood Street 1 mile at rear; total capacity 45,000 tons.

Rail Connection: None.

Highway Connection: Ohio Avenue, asphalt, 20' wide
River Road, asphalt, 20' wide
Broadway, asphalt, 40' wide

5. AGLAND CO-OP, EAST LIVERPOOL GRAIN DOCK
600 RIVER ROAD. EAST LIVERPOOL, OHIO

Purpose: Shipment of grain.

Ohio River Mile: 42.5

Shipments: Unknown

Container Handling: No

Largest Berthing: 200' **Total Berthing:** 200'

Construction: 1 -6'x6' steel platform; and row of 3 steel breasting dolphins, each with a 50'x3' steel approach. Center dolphin supports platform.

Mechanical Handling: Steel frame tower supporting 16" loading spout with 20' outboard reach serves spout and 2 steel storage silos at rear; rate 8,000 bushels per hour. Spout extends over River Road from a 16" electric bucket-elevator.

Remarks: 2 storage silos at rear have total capacity for 160,000 bushels of grain.

Rail Connection: None.

Highway Connection: River Road, asphalt, 20' wide
Broadway, asphalt, 40' wide
US-30, dual lane, each side 24' wide

6. **A.M.& O. TOWING, INC., EAST LIVERPOOL LANDING**
River Road East Liverpool, Ohio

Purpose: Mooring company-owned towboats for fleeting and barge-switching operations.

Ohio River Mile: 42.7

Shipments: Domestic Only

Container Handling: No

Largest Berthing: 215' **Total Berthing:** 215'

Construction: 2 spud barges with shore moorings.

Mechanical Handling: None.

Remarks: A.M.& O. Towing conducts towing-and-switching side of the fleeting and repair business operated by Billson Towing Co., Inc.

Rail Connection: None.

Highway Connection: River Road, asphalt, 20' wide
Broadway, asphalt, 40' wide
US-30, dual lane, each side 24'wide.

7. TRANSMONTAIGNE PRODUCT SERVICES, INC.,
EAST LIVERPOOL TERMINAL WHARF, 425 RIVER ROAD. EAST LIVERPOOL, OHIO

Purpose: Receipt of liquid fertilizer and solvents.

Ohio River Mile: 42.8

Shipments: Domestic Only

Container Handling: No

Largest Berthing: 315' **Total Berthing:** 315'

Construction: 1 permanently moored steel barge with 60'x5' elevated steel walkway approach; and 1 steel breasting dolphin in line with face.

Mechanical Handling: 1 – 1 ton, electric mast and boom derrick with 20' boom for handling hose on approach.

Remarks: 2 -6" fertilizer pipelines extend from wharf to 2 steel storage tanks at rear, total capacity 2,741,000 gallons; and 2 -6"solvent pipelines extend to 2 steel storage tanks, total capacity 2,111,000 gallons. 6 unused 6" pipelines extend from wharf.

Rail Connection: None

Highway Connection: River Road, asphalt, 20' wide
Broadway, asphalt, 40' wide
US-30, dual lane, each side 24' wide

8. EAST LIVERPOOL RIVER-RAIL TERMINAL, INC.
395 RIVER ROAD. EAST LIVERPOOL, OHIO

Purpose: Receipt of lubricating oils and styrene monomer.

Ohio River Mile: 42.9

Shipments: Domestic Only

Container Handling: No

Largest Berthing: 650'

Total Berthing: 650'

Construction: One 15'x10' unloading platform; and 3 steel breasting dolphins, each with 30'x4' steel approaches (center one supporting platform). A concrete bulkhead with solid fill is located above dolphins.

Mechanical Handling: 1 – 1 ton electric stiff-leg derrick with 30'boom on platform for handling hose.

Remarks: 1 -8" and 4 -6" lubricating-oil pipelines extend from wharf to 7 steel storage tanks; total capacity 100,000 barrels. 1 -6" styrene pipeline extends from wharf to 3 steel storage tanks; total capacity 25,000 barrels.

Rail Connection: None

Highway Connection: River Road, asphalt, 20' wide
Broadway, asphalt, 40' wide
US-30, dual lane, each side 24' wide

9. BILLSON TOWING CO., EAST LIVERPOOL REPAIR MOORINGS
253 RIVER ROAD. EAST LIVERPOOL, OHIO

Purpose: Mooring company-owned towboats, floating cranes, and floating drydocks; mooring towboats and barges for cleaning and repair; and mooring barges for fleeting.

Ohio River Mile: 43.1

Shipments: Domestic Only

Container Handling: No

Largest Berthing: 880' **Total Berthing:** 880'

Construction: Irregular arrangement of seven steel barges with shore moorings.

Mechanical Handling: One 100-, one 65-, and one 50-ton, diesel floating cranes with 200-, 90-, and 90-foot booms, respectively.

Remarks: Berthing space, including 200'of river bank on upper side, owned by East Liverpool River-Rail Terminal, Inc., extends to lower breasting dolphin of their wharf. Moors 1 -1,000 ton and 1 -1,200 ton floating drydocks at mooring. A brick office building is located at rear. Billson Towing Co. maintains a separate fleeting area at Seaforth Mineral & Ore Co., Inc. -East Liverpool Wharf with capacity for 24 barges, arranged 6 long by 4 wide, and at A.M. & O. Towing, Inc. – East Liverpool Landing for up to 6 barges in 2 tiers, each 3 barges wide at mooring.

Rail Connection: None.

Highway Connection: River Road, asphalt, 20' wide
Broadway, asphalt, 40' wide
US-30, dual lane, each side 24' wide

10. D. W. DICKEY & SON, INC., RIVER ROAD TERMINAL, EAST LIVERPOOL DOCK
100 RIVER ROAD. EAST LIVERPOOL, OHIO

Purpose: Receipt of dry-bulk fertilizer.

Ohio River Mile: 43.3

Shipments: Domestic Only

Container Handling: No

Largest Berthing: 200' **Total Berthing:** 200'

Construction: Row of 3 steel-breasting dolphins with 42'x3' steel walkway approach to center one.

Mechanical Handling: 1 barge-mounted excavator with 4 cubic-yard bucket, operated by Billson Towing Co., Inc., unloads into a receiving hopper which serves a 30"electric belt conveyor extending over River Road to stacking system in warehouse building, rail-loading conveyor, and 4 truck-loading spouts at rear; rate 120 tons per hour. One 2½ cubic yard diesel front-end loader serves open storage area.

Remarks: Rail-dumping pit and 2 hoppers in warehouse building serve conveyor system. Warehouse building, of timber construction over low concrete walls, has capacity for 12,000 tons of fertilizer.

Rail Connection: 1 surface track serves under-track pit at rear; connects with Norfolk Southern Railway.

Highway Connection: River Road, asphalt, 20' wide
Broadway, asphalt, 40' wide
US-30, dual lane, each side 24' wide

11. PARSONS COAL CO., EAST LIVERPOOL UPPER WHARF
FIRST AND WASHINGTON STREETS EAST LIVERPOOL, OHIO

Purpose: Receipt of coal, methanol, mineral spirits, and petroleum derivatives.

Ohio River Mile: 43.7

Shipments: Unknown

Container Handling: No

Largest Berthing: 600' **Total Berthing:** 600'

Construction: Natural bank; and concrete-block-capped steel-sheet-pile bulkhead with concrete surfaced solid fill.

Mechanical Handling: 1 -12 ton electric stiff-leg derrick with 90'boom, equipped with 2 cubic yard bucket with an unloading rate of 150 tons per hour. 1 hand-operated stiff-leg derrick with 15' boom for handling hose.

Remarks: Wharf is in line with and contiguous with adjacent Seaforth Mineral & Ore Co., East Liverpool Wharf providing continuous berthing space. 1 -8"and 5 -6" pipelines extend from the wharf to 6 steel storage tanks in rear:

Methanol handling: 1-8"+ 2 -6" pipelines, 3 storage tanks@ 630,000 gal., total storage 1,890,000 gal.

Polypropylene glycol handling: 1 -6"pipeline, 1 storage tank of 630,000 gallon capacity

Mineral spirits handling: 1 -6"pipeline, 1 storage tank of 420,000 gallon capacity Light oils handling:
1 -6"pipeline, 1 storage tank of 5,000 barrel capacity

3 storage bins at rear have capacity for 2,000 tons of coal. 2 warehouses at rear are each described under company-owned East Liverpool Lower Wharf.

Rail Connection: Two surface tracks at rear; connect with Norfolk Southern Railway.

Highway Connection: Washington Street, asphalt, 20'wide
West 2nd Street, 40' wide
US-30, dual lane, each side 24' wide

12. SEAFORTH MINERAL & ORE CO., INC. AND CITY OF EAST LIVERPOOL
FIRST AND MARKET STREETS EAST LIVERPOOL, OHIO

Purpose: Receipt of fluorspar, dry-bulk boric acid, and other miscellaneous ores.

Ohio River Mile: 43.9

Shipments: Domestic Only

Container Handling: No

Largest Berthing: 746' **Total Berthing:** 746'

Construction: Part steel-sheetpile; part concrete bulkhead with concrete-surfaced solid fill.

Mechanical Handling: 1 -100 and 2 -80 ton diesel crawler cranes, each with 90' boom equipped with 4 and 5 cubic yard buckets, unload into open storage area at rear; maximum rate 150 tons per hour. Facility has 5 diesel front-end loaders with 2½ to 8 cubic yard buckets and 8 -2½ ton forklift trucks.

Remarks: Upper and lower sides are contiguous with Parsons Coal Co., Inc., Upper and Lower Wharves. 4 elevated hoppers serve electric bucket elevators extending to 8 truck loading bins at rear. Roughly 5 acres of concrete-paved open storage area and 3 brick warehouse buildings with total area of 120,000 square feet are located at rear.

Rail Connection: 1 surface track serving loading spout at rear; connects with Norfolk Southern Railway.

Highway Connection: Washington Street, asphalt, 20'wide
West 2nd Street, 40'wide
US-30, dual lane, each side 24 feet wide

13. PARSONS COAL CO., EAST LIVERPOOL LOWER WHARF
FIRST AND JACKSON STREETS EAST LIVERPOOL, OHIO

Purpose: Receipt and shipment of steel coils and pipe; receipt of coal, gypsum rock, manganese, and other miscellaneous ores.

Ohio River Mile: 44.0

Shipments: Unknown

Container Handling: No

Largest Berthing: 400' **Total Berthing:** 400'

Construction: Concrete bulkhead with concrete-surfaced solid fill.

Mechanical Handling: 1 -15 ton electric stiff-leg derrick with 95'boom equipped with 2 cubic yard clamshell bucket; 1 -55 and 1 -60 ton diesel crawler cranes each with 80'boom, equipped with 2½ and 3 cubic yard clamshell buckets, respectively (unloading rate 100 tons of coal per hour each); 1 -60 ton diesel mobile crane with 130' boom; 5 -2 to 7½ ton gasoline and diesel forklift trucks; and 6 diesel front-end loaders with 1 to 6 cubic yard buckets.

Remarks: Wharf is contiguous with adjacent Seaforth Mineral & Ore Co., East Liverpool Wharf providing continuous berthing space. Open storage area with capacity for 3,000 tons of gypsum rock; 1 steel frame metal-covered warehouse building with concrete walls and capacity for 5,600 tons of fluorspar; 1 brick warehouse building with capacity for 4,500 tons of ores and ilmenite; and 2 truck-loading hoppers, 1 of which serves an electric bucket-elevator from ore warehouse, are located in the rear.1 brick and 1 steel frame metal-covered warehouse buildings at rear of Upper Wharf have capacity for a total of 2,800 tons of ferroalloys. Billson Towing Co. can fleet up to 24 barges moored below wharf at a steel spar barge along bank belonging to the City of East Liverpool, in 6 tiers, each 4 barges wide.

Rail Connection: 1 surface track at rear; connects with Norfolk Southern Railway.

Highway Connection: Washington Street, asphalt, 20' wide
West 2nd Street, 40' wide
US-30, dual lane, each side 24' wide

WELLSVILLE TERMINALS

14. MISSISSIPPI LIME CO.
18TH STREET. WELLSVILLE, OHIO

Purpose: Receipt of lime; mooring barges for fleeting.

Ohio River Mile: 48.4

Shipments: Domestic Only

Container Handling: No

Largest Berthing: 175' **Total Berthing:** 175'

Construction: Natural bank; and 1 – steel sheet pile, cellular crane platform with solid fill.

Mechanical Handling: 1 -100 ton, diesel crawler crane with 100’ boom, equipped with 10-cubic yard clamshell bucket, unloads into receiving hopper which serves a 29”covered electric belt-conveyor extending to storage silos at rear; rate 125 tons per hour.

Remarks: Wharf is in line and contiguous with adjacent, company-owned Wellsville Terminals Co., Lower Wharf providing continuous berthing space. 4 -steel storage silos at rear, each equipped with truck-loading spout, have total capacity for 1,800 tons.

Rail Connection: 1 surface track at rear; connects with Norfolk Southern Railway.

Highway Connection: 18th Street, asphalt, 20' wide
Main Street, asphalt, 24' wide
17th Street, asphalt, 30' wide

15. WELLSVILLE TERMINALS CO., WELLSVILLE WHARVES
18TH STREET. WELLSVILLE, OHIO

Purpose: Receipt of lime, coal, and steel; mooring barges for fleeting.

Ohio River Mile: 48.5

Shipments: Domestic Only

Container Handling: No

Largest Berthing: 500'

Total Berthing: 500'

Construction: Natural bank with shore moorings. (See Remarks)

Mechanical Handling: 1 – 200 and 1 – 100 ton diesel crawler cranes, each with 120'boom equipped with 18-and 10-cubic yard clamshell buckets, respectively; average unloading rate 650 tons per hour. 10 -4 to 32 ton diesel forklift trucks; 6 -diesel front-end loaders with 1½ to 10 cubic-yard buckets; and use of crane described under company-owned Mississippi Lime co. wharf.

Remarks: Wharf is in line and contiguous with adjacent, company-owned Mississippi Lime co. wharf providing continuous berthing space. Fleeting areas fronting City of Wellsville, Wastewater Treatment Plant below wharf and bank have capacity for 6 barges in 2 tiers, each 3 barges wide. At time of survey, plans called for the construction of a 900-foot steel sheet-pile bulkhead. Approximately 3 acres of open storage area at rear; and 3 warehouse buildings (2 steel frame, metal-covered over concrete walls and 1 of timber construction over concrete-block walls), have total area of 70,800 sq. ft.

Rail Connection: 1 surface track at rear with 20 car capacity; connects with Norfolk Southern Railway.

Highway Connection: 18th Street, asphalt, 20' wide
Main Street, asphalt, 24'wide
17th Street, asphalt, 30' wide

16. MARATHON PETROLEUM CORP., WELLSVILLE WHARF
21ST & NEVADA STREETS WELLSVILLE, OHIO

Purpose: Receipt and shipment of asphalt; receipt of fuel oil.

Ohio River Mile: 49.1

Shipments: Domestic Only

Container Handling: No

Largest Berthing: 440' **Total Berthing:** 755'

Construction: 1 permanently-moored steel barge with 45'x 5'steel-walkway approach; and 5 steel sheet-pile, solid-filled cellular breasting dolphins (1 square recessed into face of barge and 4 in line with face).

Mechanical Handling: 1– 1 ton, electric mast-and-boom derrick with 20'boom for handling hose.

Remarks: 3 – 10" pipelines extend from wharf to 3 fuel-oil storage tanks at rear; total capacity 259,000 barrels. 1 – 8" pipeline extends from wharf to 1 -54,000 barrel, asphalt storage tank at rear.

Rail Connection: None.

Highway Connection: Nevada Street, asphalt, 20' wide
18th Street, asphalt, 20'feet wide
Main Street, asphalt, 24' wide

17. COLUMBIANA COUNTY PORT AUTHORITY, WELLSVILLE DOCK
21ST & NEVADA STREETS. WELLSVILLE, OHIO

Purpose: Receipt and shipment of containerized general cargo and miscellaneous liquid-and dry-bulk commodities, including steel coils, structural steel shapes, and billets.

Ohio River Mile: 49.4

Shipments: Domestic Only

Container Handling: Yes

Largest Berthing: 480' **Total Berthing:** 480'

Construction: 6 – 20' diameter, steel-sheet-pile cellular breasting dolphins (4 in line and 2 set back behind middle 2 cells supporting structure); a single, 30' diameter steel sheet-pile, cellular breasting dolphin; and 2 steel-pipe breasting dolphins. 1 barge is permanently moored behind middle 2 cells for supporting hopper and conveyor system.

Mechanical Handling: 1 overhead bridge crane with multiple rigging, including container harnesses, clamshell bucket, and "C" hooks. Receiving hopper serves a 48"conveyor extending to storage area at rear; rate 400 tons per hour. (See Remarks)

Remarks: 1 – 6"pipeline extends from wharf to 3 steel storage tanks at rear; total capacity 872,000 barrels. 1 -212,000 sq. ft. warehouse processes material at the terminal. 4 acres of riverside storage is available adjacent to the terminal. An additional 25 acres are on opposite side of railroad tracks. 700 acres are located across SR-7 for future distribution and processing facilities. Terminal was under construction at time of survey (2005).

Rail Connection: 2 rail spurs, served by Norfolk Southern Railway, are available at the terminal with capacity for 1-unit trains totaling 100 cars (one 3,800-foot and one 3,600-foot, with plans to extend to 6,000 feet).

Highway Connection: Nevada Street, asphalt, 20'wide
18th Street, asphalt, 20'wide
Main Street, asphalt, 24'wide

18. QUALITY LIQUID FEEDS, WELLSVILLE DOCK
2402 CLARK AVENUE WELLSVILLE OHIO

Purpose: Receipt of Molasses

Ohio River Mile: 49.7

Shipments: Domestic only

Container Handling: No

Largest Berthing: 425' **Total Berthing:** 425'

Construction: Row of 4 steel-sheet-pile, solid-filled cellular breasting dolphins, 2 with 70'x7', steel walkway and pipeline approaches.

Mechanical Handling: Two 1/2-ton mast and boom derricks, each with an 18' boom for handling hose.

Remarks: 1 -12" and 1 – 8" pipelines connecting to a 6"pipeline extending from wharf to 3 steel storage tanks at rear; total capacity 872,000 barrels. 2 other liquid storage tanks are available for future use, each with 36,000-barrel-capacity. One 3"steam line serves wharf. At time of survey, plans called for this operator to move to another location and convert terminal to other uses.

Rail Connection: None.

Highway Connection: 25th Street, asphalt, 20' wide
Old Route 7, asphalt, 20-30'wide
Clark Avenue, asphalt, 24' wide.