

### 3.10 Economy

The existing state of the economy in the OMEGA RTPO will focus on shale development, employment by sector, economic clusters, and locations of major industrial/business parks within the region.

Transportation and freight movement are key components to the success of the economy in the region.

#### 3.10.1 Shale Development

Development of the shale energy industry has dominated the local economy in the OMEGA district. Core shale-related employment includes well drilling and development, pipeline construction, and construction of processing facilities. Employment and facilities related to the transportation of materials, pipeline, and products have also increased. In addition, several oil and gas service related businesses are being developed throughout the region to support shale development activities. The ripple effect on non-shale industries, such as food, lodging, and retail businesses has also been significant.

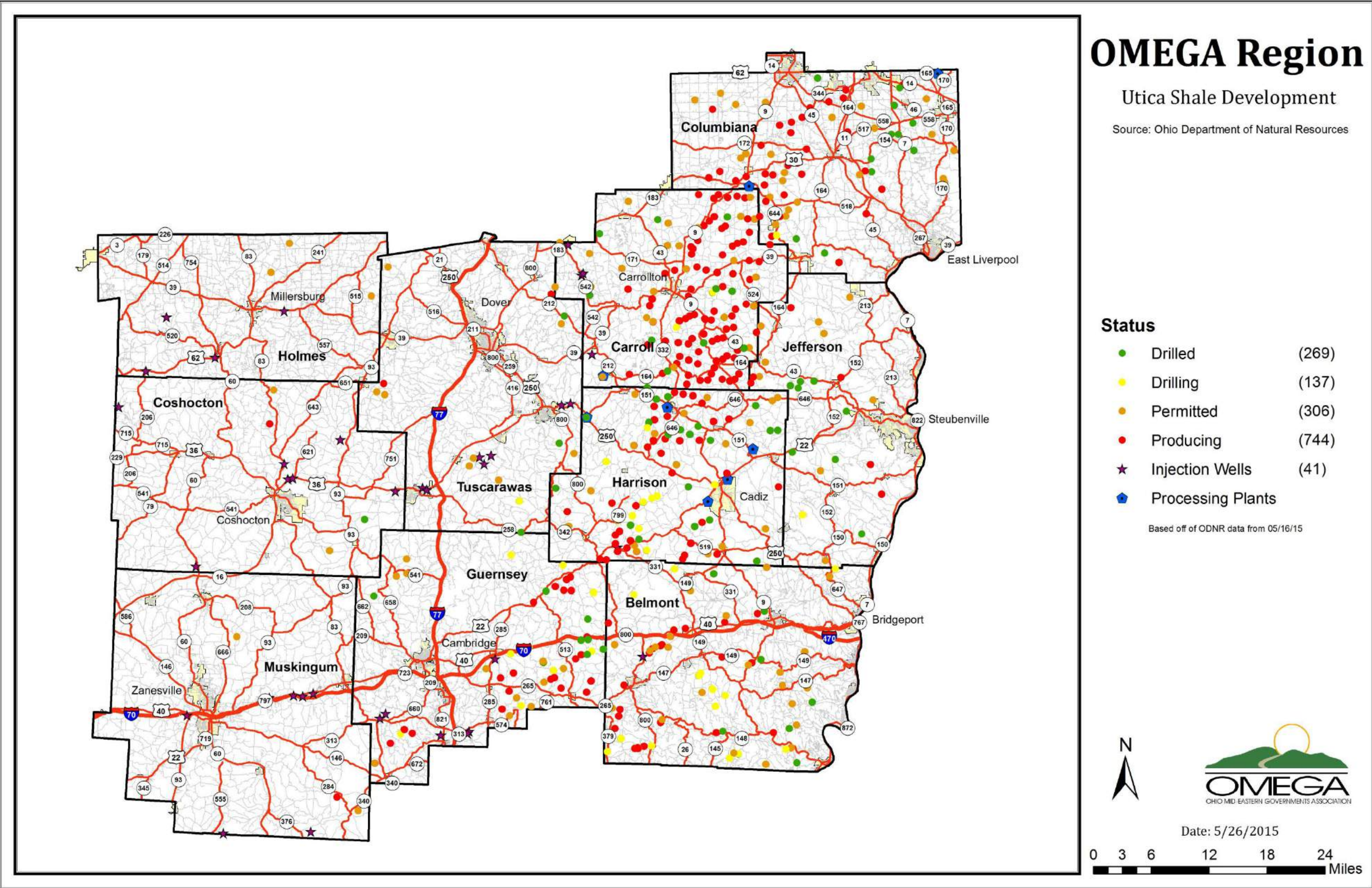
As of May 15, 2015, 1,456 wells in the Utica shale have been permitted, drilled, in process of being drilled, or are in production in the OMEGA ten-county region. As shown in Figure 3-36 and Table 3-17, Carroll County leads the state with 481 wells, 358 of which are in production. Second is Harrison County with 343 wells, 149 of which are in production. Guernsey County has 84 wells in production and Columbiana County has 56 wells in production.

**TABLE 3-17: UTICA SHALE DEVELOPMENT**

County	Drilled	Drilling	Permitted	Producing	Total
Belmont	38	49	75	76	238
Carroll	55	10	58	358	481
Columbiana	13	6	56	56	131
Coshocton	1	0	3	1	5
Guernsey	35	30	28	84	177
Harrison	106	33	55	149	343
Holmes	0	0	3	0	3
Jefferson	18	8	15	14	55
Muskingum	0	0	2	1	3
Tuscarawas	3	1	11	5	20
<b>Total</b>	<b>269</b>	<b>137</b>	<b>306</b>	<b>744</b>	<b>1,456</b>

*Source: ODNR*

Figure 3-36: UTICA SHALE DEVELOPMENT





As shown in Figure 3-36, six processing plants are located in the OMEGA RTPo with an additional one planned for Tuscarawas County. These plants include:

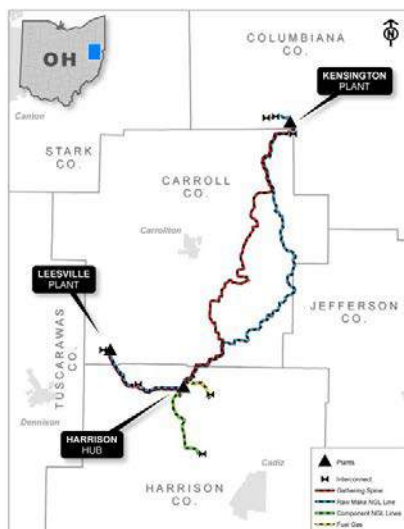
- MarkWest Utica EMG: Cadiz Plant I and II, Harrison County
- MarkWest Utica EMG: Hopedale Fractionation Complex, Harrison County
- Momentum Utica East Ohio Midstream: Harrison Hub, Scio, Harrison County
- Momentum Utica East Ohio Midstream: Leesville Plant, Carroll County
- Momentum Utica East Ohio Midstream: Kensington Plant, Columbiana County

MarkWest is focused on the development of leading gathering, processing, fractionation, and marketing infrastructure to support natural gas production in Eastern Ohio including marketing and logistics services including truck, rail and pipeline in Harrison County.

At the Cadiz facility, methane and ethane are removed from the gas stream. The propane, butane, isobutene and other, heavier natural gas liquids flow via pipeline from Cadiz to MarkWest's Hopedale fractionator for further separation. Hopedale is also located in Harrison County. The Cadiz complex will soon include two de-ethanizers that will remove ethane from the gas stream.

MarkWest currently has three options for the ethane – send it to Canada for cracking via the Mariner

West Sunoco pipeline, send it to the Gulf coast for cracking via the ATEX Express pipeline, or send it to the Gulf Coast for cracking via the Bluegrass Pipeline. Since ethane is anywhere from 14 percent to 16 percent of the gas stream, an outlet is needed. For months in 2011 and 2012, officials in Ohio and West Virginia worked to secure an ethane cracker. Royal Dutch Shell eventually settled on a site in Pennsylvania located along the Ohio River.



The Kensington processing plant is a cryogenic natural gas-processing plant located in southern Columbiana County. Once a hilltop farm, the 60-acre complex is now a maze of oversized pipes, valves, tanks and meters. The processing plant is 1,000 feet long and is dominated by a 17-story stainless steel-alloy demethanizer tower, complete with a turbocharger to help compress the natural gas. The \$400 million plant uses temperatures

as low as 180 degrees below zero Fahrenheit to separate natural gas from liquids. The result is natural gas that is purified and ready for the pipeline to be shipped to market. Ethane, propane, and butane are then transported to the processing plant in Scio for component separation.

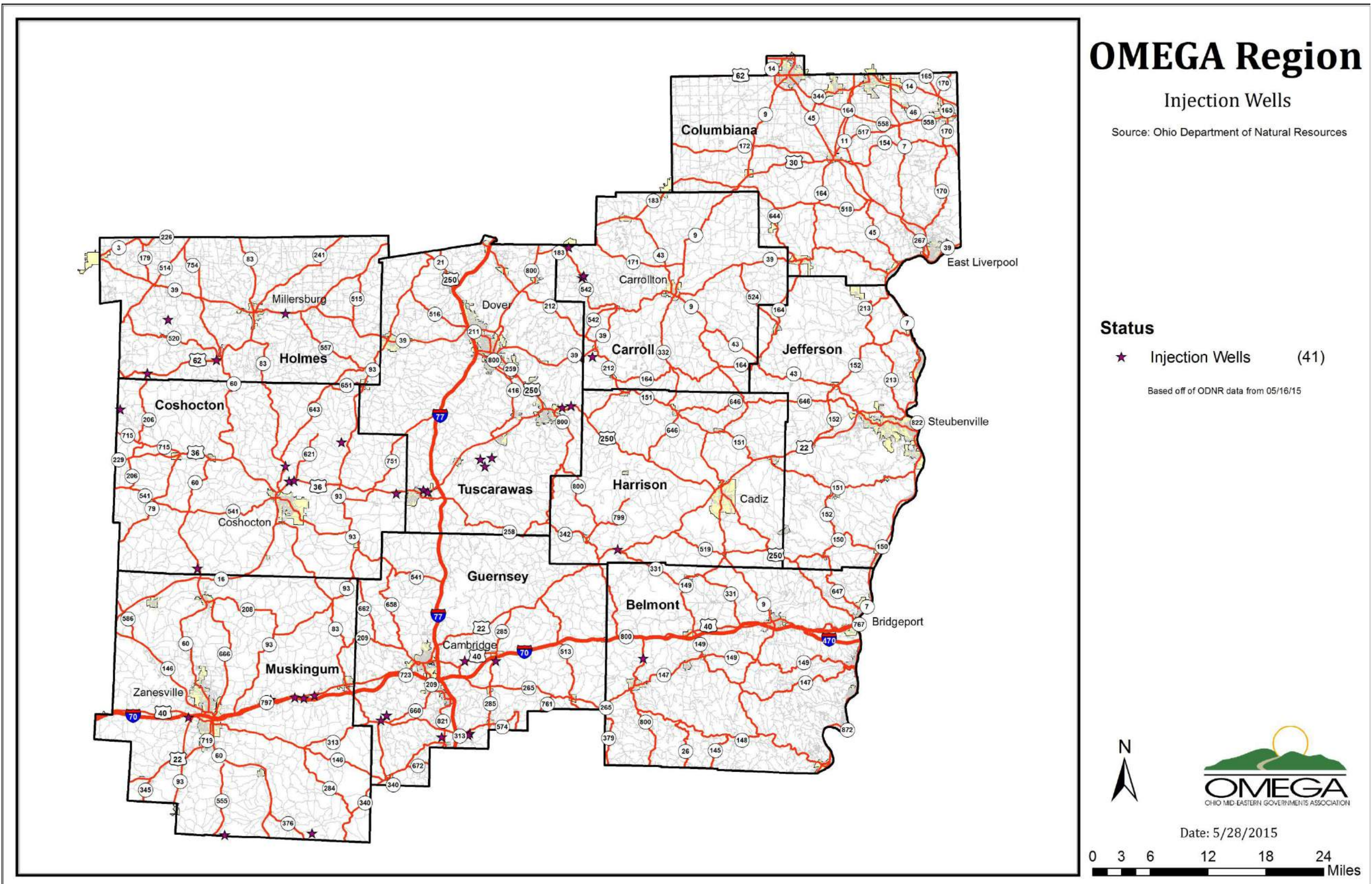
Several deep wells for the injection of brine and spent drilling fluids have also been installed in the OMEGA RTPo. These wells have been installed



in Carroll, Coshocton, Guernsey, Holmes, Muskingum, and Tuscarawas Counties, the locations of which are shown in Figure 3-37. As of May 28, 2015, 41 of these injection wells are active. OMEGA will monitor the volume of truck traffic associated with the operation of these wells and the impact on the local community. As shown on Figure 3-37, one of these wells is located on SR 209 just south of I-70 in Guernsey County, an area that has already been identified as congested.



Figure 3-37: DEEP INJECTION WELLS



### 3.10.2 Employment by Sector

In 2012, the top five employment sectors by number of employees in the OMEGA RTPO were:

1. Trade, Transportation, and Utilities
2. Manufacturing
3. Education and Health Services
4. Government
5. Leisure and Hospitality

On the basis of annual payroll, the top five employment sectors were:

1. Manufacturing
2. Trade, Transportation, and Utilities
3. Education and Health Services
4. Government
5. Construction

Almost 40% of the employed workforce in the OMEGA RTPO was employed by the manufacturing and trade, transportation, and utilities sectors. The exceptions are in Harrison, Holmes, and Muskingum Counties. In Harrison County, these two sectors only account for 33% of the total employment. As shown in Table 3-18, 35% of the employment is in the manufacturing sector in Holmes County and only 9% of the employment is in the manufacturing sector in Muskingum County. The top employment sector in Muskingum County on the basis of employment and annual payroll is Education and Health Services. Muskingum County is home to the Muskingum University, Zane State College, a branch of Ohio University and the Genesis Medical Center.

Since this employment information is based upon 2012 data, the impact of shale development is not yet evident. With the exception of Harrison County, the natural resources and mining sector accounts for less than 2% of the total employment in the OMEGA RTPO region. In Harrison County, the natural resources and mining sector accounts for 11% of the total employment. This higher percentage appears to be reflective of the coal mining activity in the county.

As shown in Figure 3-38, the manufacturing sector in the OMEGA RTPO region accounts for approximately 19.8% of the total employment in the region; whereas the statewide average is only 13%. The other major difference in employment between the OMEGA RTPO region and the State of Ohio is the professional and business service sector which accounts for only 6.5% of the employment in OMEGA's region and for 13.3% statewide. Employment in the natural resources and mining segment is slightly higher in the OMEGA region and employment in the financial services sector is slightly higher at the state level. All other employment sectors are comparable.



**Table 3-18: EMPLOYMENT BY SECTOR**

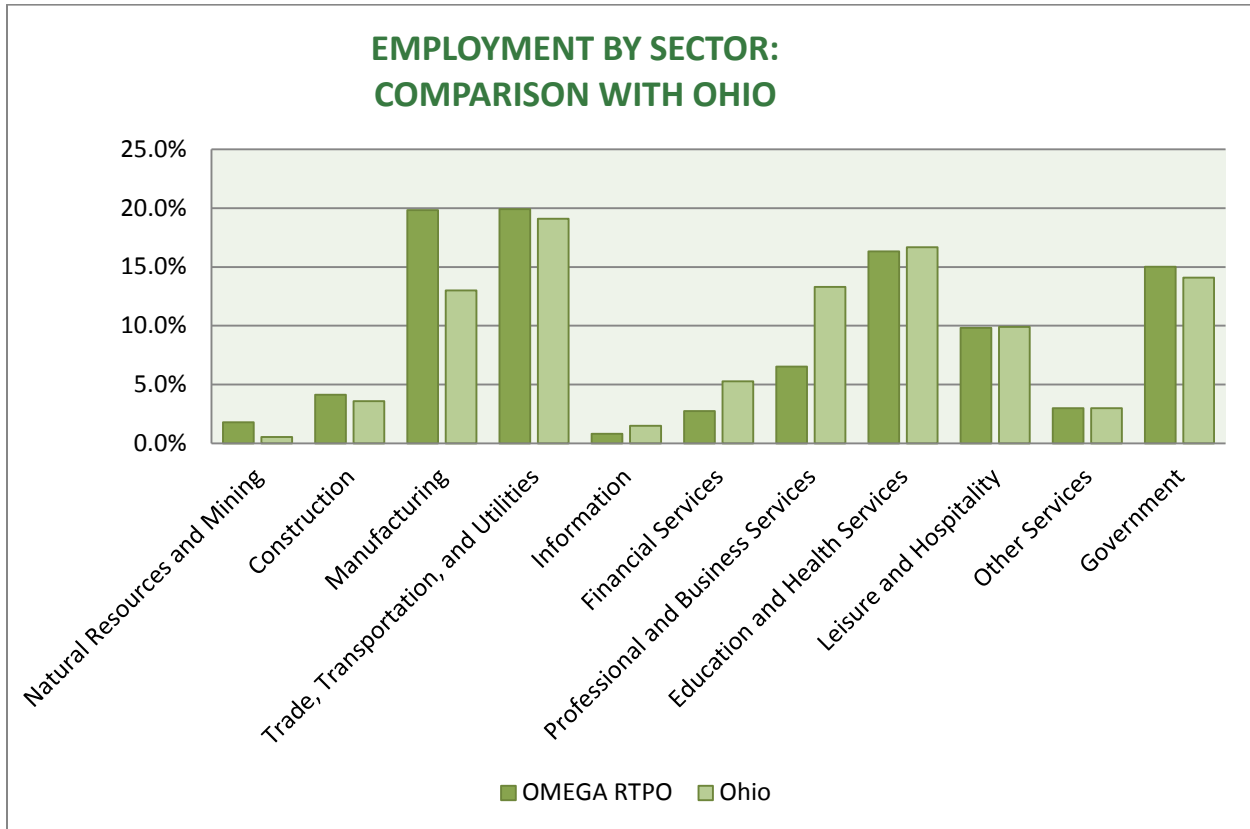
Sector	Carroll			Columbiana			Coshocton			Guernsey			Harrison		
	No.*	Paid Employees	Annual Payroll (\$1,000)	No.*	Paid Employees	Annual Payroll (\$1,000)	No.*	Paid Employees	Annual Payroll (\$1,000)	No.*	Paid Employees	Annual Payroll (\$1,000)	No.*	Paid Employees	Annual Payroll (\$1,000)
Private Sector	462	4,969	158,498	2,054	25,219	786,855	644	8,749	304,156	816	11,582	401,000	252	2,692	93,951
Goods-Producing	118	1,816	80,898	434	6,890	272,777	127	2,900	132,528	143	3,624	178,590	62	1,104	55,231
Natural Resources and Mining	15	173	10,503	32	285	9,764	26	199	12,723	24	230	12,137	17	384	25,031
Construction	66	398	19,605	208	946	38,083	41	185	7,633	61	608	38,916	34	154	10,607
Manufacturing	38	1,244	50,790	194	5,659	227,930	59	2,516	112,172	58	2,786	127,537	12	567	19,594
Service-Providing	344	3,154	77,600	1,620	18,329	514,078	518	5,850	171,628	673	7,958	222,410	190	1,589	38,720
Trade, Transportation, and Utilities	116	1,219	38,738	543	6,224	191,505	169	2,070	74,631	221	2,423	67,453	72	537	15,196
Information	6	37	1,690	15	124	4,556	9	67	2,156	11	99	2,898	4	NA	NA
Financial Services	30	123	3,244	168	854	29,056	51	289	9,883	72	319	12,603	18	124	2,923
Professional and Business Services	53	196	5,661	245	1,969	62,301	72	667	19,084	93	719	30,558	26	88	3,180
Education and Health Services	39	694	16,862	263	5,326	170,504	87	1,720	51,276	120	2,514	79,538	21	518	13,091
Leisure and Hospitality	51	648	6,986	196	2,789	31,081	66	785	9,860	87	1,562	22,304	30	239	2,369
Other Services	50	237	4,418	189	1,041	24,983	64	252	4,739	70	322	7,057	20	NA	NA
Federal Government		44	1,927		587	37,712		71	3,876		125	6,541		51	2,382
State Government		31	1,468		349	18,811		42	1,924		552	26,515		45	2,299
Local Government		903	28,288		4,088	138,446		1,467	48,709		1,685	55,934		638	18,023
<b>Total</b>		<b>5,947</b>	<b>190,181</b>		<b>30,243</b>	<b>981,824</b>		<b>10,329</b>	<b>358,665</b>		<b>13,944</b>	<b>489,990</b>		<b>3,426</b>	<b>116,655</b>

Sector	Holmes			Muskingum			Tuscarawas			Total			Ohio		
	No.*	Paid Employees	Annual Payroll (\$1,000)	No.*	Paid Employees	Annual Payroll (\$1,000)	No.*	Paid Employees	Annual Payroll (\$1,000)	No.*	Paid Employees	Annual Payroll (\$1,000)	No.*	Paid Employees	Annual Payroll (\$1,000)
Private Sector	1,055	16,150	494,906	1,706	27,063	921,794	2,125	29,988	956,794	9,114	126,412	4,117,954	272,995	4,336,385	189,100,588
Goods-Producing	486	8,238	278,829	278	4,506	218,976	484	9,255	403,504	2,132	38,333	1,621,333	41,012	863,417	46,877,564
Natural Resources and Mining	38	283	9,689	43	465	26,810	57	662	32,136	252	2,681	138,793	2,192	26,462	1,288,286
Construction	203	1,657	58,592	158	994	43,624	213	1,216	47,447	984	6,158	264,507	22,883	180,781	9,147,313
Manufacturing	245	6,298	210,548	78	3,047	148,542	215	7,377	323,921	899	29,494	1,221,034	15,938	656,174	36,441,966
Service-Providing	569	7,912	216,077	1,428	22,557	702,818	1,641	20,734	553,290	6,983	88,083	2,496,621	231,983	3,472,968	142,223,023
Trade, Transportation, and Utilities	268	3,277	92,180	463	6,993	200,016	550	6,888	199,939	2,402	29,631	879,658	67,455	964,771	36,993,796
Information	6	79	2,542	15	528	18,119	24	279	9,760	90	1,213	41,721	4,273	74,525	4,484,257
Financial Services	45	420	16,237	167	979	41,674	179	987	34,122	730	4,095	149,742	27,209	266,358	15,708,384
Professional and Business Services	68	1,604	53,819	195	1,884	60,191	229	2,594	80,631	981	9,721	315,425	49,217	672,021	38,486,568
Education and Health Services	48	964	27,403	213	7,312	306,157	208	5,224	158,424	999	24,272	823,255	30,998	841,617	34,273,405
Leisure and Hospitality	81	1,315	17,011	211	3,582	49,416	253	3,671	44,805	975	14,591	183,832	27,289	500,127	8,149,162
Other Services	53	253	6,817	160	1,267	27,076	197	1,088	25,543	803	4,460	100,633	24,350	151,338	4,055,520
Federal Government		64	2,869		231	12,466		237	12,472		1,410	80,245		78,255	5,533,758
State Government		35	1,611		362	12,108		470	24,141		1,886	88,877		128,389	7,384,454
Local Government		1,527	52,695		4,593	160,539		4,145	141,840		19,046	644,474		504,068	21,329,985
<b>Total</b>		<b>17,776</b>	<b>552,081</b>		<b>32,249</b>	<b>1,106,907</b>		<b>34,840</b>	<b>1,135,247</b>		<b>148,754</b>	<b>4,931,550</b>		<b>5,047,097</b>	<b>223,348,785</b>

\* Number of Establishments

Source: Ohio County Profiles, Office of Policy, Research and Strategic Planning, 2013

Figure 3-38: Employment by Sector: Comparison with Ohio



### 3.10.3 Economic Clusters

In the 2012 Comprehensive Development Strategy for the OMEGA region, five industrial clusters were identified: wood, food, steel, metal, and plastics. Shale development was considered the sixth emerging cluster. These five sectors account for almost 13,000 jobs or 9% of the total employment in the OMEGA RTPO region. Employment summary by county for each of these clusters is provided in Table 3-19 and maps showing the location of these industries are provided in Figures 3-39 to 3-43.

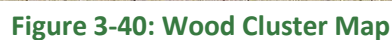
**Table 3-19: Employment by Industry Cluster**

County	Food		Wood		Steel		Metals		Plastics	
	No. of Businesses	Employment	No. of Businesses	Employment	No. of Businesses	Employment	No. of Businesses	Employment	No. of Businesses	Employment
Carroll	3	27	3	198	1	22	5	42	1	217
Columbiana	6	765	3	189	8	57	25	122	3	681
Coshocton	5	528	2	122	1	135	2	42	1	105
Guernsey	6	140	9	585	2	25	3	23	5	563
Harrison	2	12	2	110						
Holmes	10	1,011	24	965			2	14	2	906
Muskingum	18	1,433	8	562	2	92	7	34	3	165
Tuscarawas	9	575	20	788	5	167	14	82	11	1,368
<b>Total</b>	<b>59</b>	<b>4,491</b>	<b>71</b>	<b>3,519</b>	<b>19</b>	<b>498</b>	<b>58</b>	<b>359</b>	<b>26</b>	<b>4,005</b>

Source: OMEGA 2012 Comprehensive Economic Development Strategy



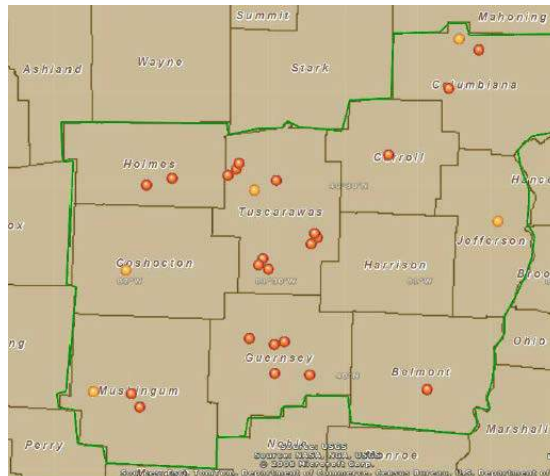
OMEGA's wood sector includes several sawmills and small manufacturers of finished wood products. Over 60% of the wood related businesses are located in Holmes and Tuscarawas Counties. These businesses account for 50% of the employment in the wood cluster. In Holmes County, many small independent furniture manufacturers have formed an association to bid on large scale projects in order to become more successful in today's economy.





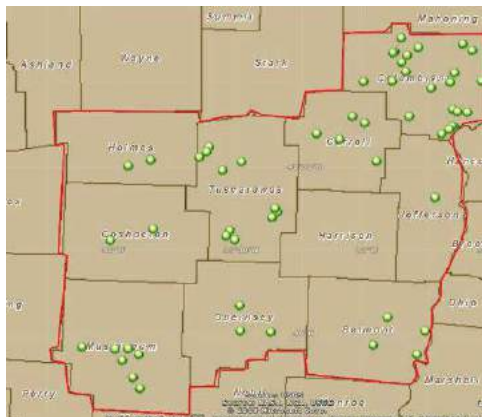
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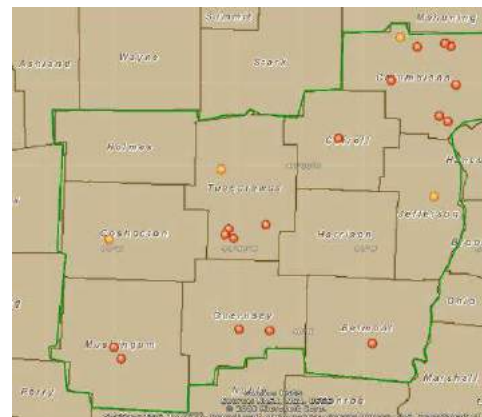


**Figure 3-41: Plastics Cluster Map**

The metal cluster includes the manufacture of brass and tin, as well as exotic metals such as titanium and vanadium. Firms in this area include fabricators, welders, foundries, and metal products of many varieties. In fact, one of the largest manufacturers in the nation of vanadium alloys is AMG Vanadium located in Guernsey County. Columbiana County followed by Tuscarawas County leads the region in employment in the metal sector.



**Figure 3-42: Metals Cluster Map**



**Figure 3-43: Steel Cluster Map**

While once a thriving industry in our region, the steel industry has been dramatically reduced with less than 500 employees in this sector. Highest levels of employment in this sector are in Coshocton and Tuscarawas Counties.

### 3.10.4 Industrial/Business Centers

Logistics, freight, and employee and customer access are key components to developing and maintaining transportation systems that will support the industrial and business growth. To assist with this task, the major business and industrial centers in each county were identified as well as accessibility to a National or Statewide Highway Corridor, rail, water, and air. The locations of these centers are

shown in Figure 3-45 and summarized in Table 3-20. The OMEGA RTPO planning area has 37 industrial/business centers that are in various stages of development from the initial planning stages to completely occupied without any available space.

Carroll and Holmes Counties are the only two counties in the OMEGA RTPO that do not have ready access to a National or Statewide Highway Corridor. Columbiana County is the only county that has business or industrial property located near the Ohio River and ready access to ports for shipping along the Ohio River. All counties have access to rail; however, not all industrial/business centers have rail access. General aviation airports also serve all counties; however, these airports are not large enough to handle freight. Several airports also need to have the runway length increased in order to better accommodate private jet service for the businesses in the region.



**TABLE 3-20: INDUSTRIAL/BUSINESS CENTERS**

County	Label	Industrial/Business Center	Acreage
• <b>Carroll</b>	CAR 1	Carroll County Commerce Park	283
	CAR 2	Carrollton Industrial Park	
	CAR 3	Minerva Industrial Park	
• <b>Columbiana</b>	COL 1	Columbiana Industrial Park (Heck Road)	
	COL 2	Crockery City Farms Industrial Park (intersection of SR 11 and US 30; planning stages)	
	COL 3	Leetonia Industrial Park (Cherry Fork)	
	COL 4	Leetonia Trade Park (Commerce Avenue)	126
	COL 5	Lisbon Industrial Park (Industrial Park Road)	
	COL 6	Riverview Florist technical Park (Parkway & Anderson, East Liverpool; under development)	
	COL 7	Wellsville Intermodal Facility (Clark Avenue)	
	COL 8	Better Management Distribution Center (Esterly Drive, Columbiana)	
	COL 9	Salem Industrial Park (Ellsworth Avenue)	
• <b>Coshocton</b>	COS 1	GE Property (Prime)	60
	COS 2	Coshocton County Port Authority	22
	COS 3	Sonnefields (US 36 and SR 621; in planning stages; but infrastructure is available)	
	COS 4	West Lafayette Industrial Park (in planning stages; infrastructure needed)	205
• <b>Guernsey</b>	GUE 1	I 70/ I 77 Industrial Park (full, no acreage available)	252
	GUE 2	D.O. Hall Business Center (109 acres available)	219
	GUE 3	Byesville Business Park (full, no acreage available)	49
• <b>Harrison</b>	HAS 1	Harrison County Industrial Park	500
	HAS 2	Pizzino Hopedale Complex	50
• <b>Holmes</b>	HOL 1	Loudonville Industrial Park	
	HOL 2	Killbuck Industrial Park	
• <b>Muskingum</b>	MUS 1	Eastpointe Business Park	1,200
	MUS 2	Northpointe Business Park	390
	MUS 3	Airport Park	
• <b>Tuscarawas</b>	TUS 1	Newcomerstown Industrial Park	200
	TUS 2	Tuscarawas Regional Technology Park	170
	TUS 3	Strasburg Industrial Park	
	TUS 4	Knisely New Philadelphia Industrial Park	
	TUS 5	Dover Industrial Park	
	TUS 6	Cookson Industrial Park, New Philadelphia	25
	TUS 7	Dennison Park	
	TUS 8	Hilltop Properties Industrial Park, Strasburg	
	TUS 9	Deeds Industrial Park	140
	TUS 10	Lawrence Township Industrial Park	
	TUS 11	Reeves Mill Industrial Park	

Figure 3-44: Industrial Centers

# Industrial Centers

Industrial Parks in the OMEGA region.

