



# ECONOMIC RESILIENCY PLAN

FOR THE COMMUNITY OF MADISON COUNTY, KY

Prepared by the Bluegrass Area Development District and  
MWM Consulting, LLC for the U.S. Department of Defense  
Office of Local Defense Community Cooperation

## Abstract

The destruction of the chemical weapons stockpile at the Blue Grass Army Depot in Richmond, Kentucky, originally comprised of 523 U.S. tons of weaponized blister and nerve agents in rockets and projectiles, is expected to complete Operations Phase by September 2023. The Economic Resiliency Plan provides a baseline for federal and local governments to ensure appropriate transition of jobs, mitigate the economic impact that could result from the release of an 1,800-person workforce, and provides a capture strategy to ensure that the jobs created by the project activities will stay within the region. Madison County hopes to diversify the regional economy and adjust its dependence on existing defense programs, and to recruit new industry to the area to employ this highly skilled workforce. The Economic Resiliency Plan focuses on the following areas of study: Financial Impact of the Chemical Weapons Demilitarization Project, Workforce, Market Assessment, and Target Industry Analysis coupled with workforce retention strategies.

# Executive Summary

- The Blue Grass Army Depot (BGAD) is a **14,494-acre military installation in Madison County, Kentucky**, providing conventional ammunition services, chemical defense equipment management, and manufacturing capabilities for the Department of Defense (DoD). **Two-hundred twenty-five acres of the property is dedicated to chemical weapons storage and destruction and requires the participation of over 1,800 federal and contract employees.** The Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) is safely destroying the chemical weapons stockpile stored at the BGAD, which was originally comprised of 523 tons of weaponized blister and nerve agent. Stockpile destruction operations must be completed by the Chemical Weapons Convention international treaty commitment of September 30, 2023, and the Congressional mandate of December 31, 2023.
- The Office of Local Defense Community Cooperation (OLDCC) has identified a need for an economic diversification study for Madison County, Kentucky. There are currently **no formal plans to promote and direct the reuse of the 1,800 highly skilled and trained employees** connected to this mission to future employment opportunities within the county borders. It is expected there will be a gradual release of these employees between 2023-2026 into the local workforce. Furthermore, OLDCC has determined that a substantial portion of Madison County is economically dependent on DoD employment.
- The chemical demilitarization mission has been a significant contributor to Madison County's economy. The county has seen more than **1,800 new jobs, over \$1.1 billion in local payroll tax, and \$111 million spent in Madison County and surrounding counties.** The Depot currently provides an average annual economic impact of approximately **\$200 million** and is the second largest per capita employer in Central Kentucky. Moreover, the project has injected over **\$1.08 billion into the region via payroll** and spent **over \$190 million with Kentucky companies.** Lastly, Madison County receives millions of dollars in annual funding from the Chemical Stockpile Emergency Preparedness Program (CSEPP) funding, which finances specialized training, additional public safety equipment and an 800-megahertz radio system used in emergencies.
- The completion of the chemical weapons destruction mission and the potential departure of nearly 2,000 highly paid, highly skilled workers will have far reaching and adverse financial implications on the local community and the region if workforce retention does not take place. **This study is intended to provide community leaders with data-driven recommendations for workforce retention and industry attraction outside of the BGAD base to ensure a sustainable transition of jobs in the region and to mitigate the negative economic impact that may result from the completion of the chemical weapons destruction mission.** Together, with a grant from OLDCC, the Bluegrass ADD, MWM Consulting, and Madison County leadership are investigating the possibilities for retaining the skilled personnel included in the decommission plan through a combination of existing industry needs and new industry recruitment via the **Economic Resiliency Plan.**
- This study represents an initial analysis of the chemical weapon demilitarization **workforce and wage assessment; an economic overview of Madison County**, including employment and wage trends, industry clusters, commuting patterns, local and state business climate including tax incentive programs and permitting & regulatory procedures, transportation and accessibility, utility infrastructure, vacancy rates and construction costs, education and quality of life in Madison County; and **recommended target industries to attract for workforce retention.**

# Executive Summary, Cont.

- The FY 2023 National Defense Authorization Act (NDAA) includes a provision that directs the Secretary of Defense, in consultation with the Secretary of the Army, to conduct a **feasibility study to assess potential missions, plants, or industries feasible for Army or the U.S. Department of Defense needs** following completion of the chemical demilitarization mission at the BGAD. Facility reuse and utility retention will also be analyzed. The feasibility study is required to be completed and submitted to Congress by **March 1, 2023**.
- The study's findings and recommendations point to an overwhelming opportunity for the community to use the potential loss of workforce for existing industry growth and new industry recruitment. While the chemical weapon demilitarization workforce is considered highly skilled, it has been determined the **majority will be suited to transition to an industrial related project**. Thus, many of our findings will be focused on industrial and manufacturing activity.
- The **following industries would be well-suited to absorb the workforce becoming available**:
  - Automotive/EV related projects
  - Food & Beverage
  - Data Centers
  - Chemical/Petrochemical
  - Primary Metals
- Additionally, it was found that while there are existing sites available and under public control, none of these sites are large enough to handle a request of at least 250 acres of contiguous land (under public control) with the adequate utility infrastructure in place. Ideally, **ending in ownership (or optioning) a large site together**. Lastly, it is recommended that the community use the specific occupation and wage details provided within this study and **partner with the Cabinet for Economic Development in the recruitment of new industries**. Through **regional and state collaboration**, there will be one consistent message which will increase the likelihood of success.





## Employees in the Decommission Plan

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# Federal Agencies and Private Contractors

**Bechtel Parsons Blue Grass (BPBG)** is the systems contractor selected by the DoD’s Executive Office, Assembled Chemical Weapons Alternative (PEO ACWA) program to design, build, systemize, test, operate and close the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP). BPBG is a Joint Venture of two contractors and three subcontractors.

- Bechtel National, Inc (Bechtel)
  - One of two prime contractors for the chemical weapons destruction program at the BGAD and employs 297 contract employees.
  - Primary occupations include: support-type functions (i.e. project controls, quality assurance/quality control, document control, procurement functions, office and facility services and construction).
  - Of the 297 employees – 142 were local hires within 50 miles of the site, others transferred from other Bechtel contracts.
- Parsons Corporation (Parsons)
  - Second prime contractor for the chemical weapons destruction program at the BGAD employing 333 contract employees.
  - 65% of labor force fall in the operator category performing general plant work and rotate stations to ensure diversification in training and capabilities.
  - Workforce is a mix between hourly, most hired from the local community, and professional.
- Amentum, formerly AECOM
  - Employs 530 contract employs at BGCAPP, primarily supporting plant operations (i.e. machinery maintenance mechanical/mechanical technician, stationary engineer/control room operator, aircraft life support ALSE/SDA operator, sewage plant operator and instrument mechanic).
- GP Strategies Corporation (GP Strategies) –
  - Employs 52 contract employs at BGCAPP providing technical training and e-learning solutions (courses in chemical demilitarization, laboratory operations, maintenance and emergency response and toxic-area monitoring).
- Battelle Memorial Institute (Battelle)
  - Employs 236 contract employees at BGCAPP, primarily monitoring systems and equipment at the plant (i.e. emissions monitory equipment and devices, carbon filters and the stack)
  - 58% of workforce are technicians (monitoring, instrument, environmental, etc.) and the others are primarily chemists (lab tech and researchers), programmers and statisticians.

	Bechtel Parsons Blue Grass	Blue Grass Chemical Activity	PEO ACWA	Blue Grass Army Depot - Security
<b>Employer Type</b>	Private Contractor	Federal Agency	Federal Agency	Federal Agency
<b>No. of Employees</b>	1,473	161	33	175 – 200 (specific to this mission)
<b>Primary Responsibility</b>	Design, build, test, operate and close the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP).	Responsible for the safe storage and transport of chemical weapons to the disposal facility.	Responsible for the destruction of the remaining U.S. chemical weapons stockpile.	Provide security to BGCAPP and storage facilities holding remaining chemical weapons stockpile.
<b>Primary Occupations</b>	Engineering, Plant Operations, Skilled Trades and Technician	Industrial Hygiene and Safety Professionals (Specifically Toxic Material Handlers and Explosive Inspectors)	Engineers, Project Management, and Administrative Services	Security

**Blue Grass Chemical Activity (BGCA)** is the federal employers responsible for safekeeping of the chemical weapons stockpile stored at the BGAD. BGCA supports delivery of chemical munitions to the BGCAPP for destruction and returning the drained rocket warheads to the Chemical Limited Area (CLA) and storing them temporarily. BGCA is a subordinate unit of the U.S. Army Chemical Materials Activity (CMA) and employs 161 federal employees with primary occupations including Industrial Hygiene and Safety Professionals (specifically Toxic Materials Handlers and Explosive Inspectors)

**PEO ACWA** is the Department of Defense agency responsible for managing the destruction of the Blue Grass chemical weapons stockpile by the Chemical Weapons Convention (CWC) treaty commitment of September 30, 2023. PEO ACWA’s 33 employees provide administrative and technical services necessary to support the demilitarization facility.

The **Blue Grass Army Depot** provides between 175-200 security employees to safeguard the chemical weapons storage and destruction areas. A large majority are former military and are term employees for the BGAD.



# Anticipated Release Dates of Contract Employers and Federal Agencies

- The Bechtel Parsons Blue Grass Joint Venture (JV) will collectively develop program milestones and an integrated milestone schedule. Each contractor and federal employer will have their scope within the milestones and will develop an anticipated rollout schedule based upon milestone activity.
- As of January 2023, Bechtel Parsons Blue Grass has not developed a firm release date schedule but confirmed that the first release of employees would occur September 1, 2023.

<p><b>Bechtel Parsons Blue Grass</b></p>	<p>The information below is a projected employment headcount moving into 2026 for Bechtel Parsons Blue Grass. Operations phase and Closure phase 1 are under contract. The next phase of Closure will be secured in 1-2 years. Average headcount to remain at BGCAPP over the remaining life of the chemical demilitarization mission is below:</p> <table border="1" data-bbox="1370 539 2461 704"> <thead> <tr> <th></th> <th>2023</th> <th>2024</th> <th>2025</th> <th>2026</th> </tr> </thead> <tbody> <tr> <td>Average headcount to remain</td> <td>1,440</td> <td>1,274</td> <td>911</td> <td>536</td> </tr> </tbody> </table> <p>The first release of employees will occur in September 2023 and will include ~100 Ordinance Technicians. These individuals handle the ammunition, dismantle it, remove the hazardous components, etc. This group has experience with robotic and mechanical moving equipment.</p>		2023	2024	2025	2026	Average headcount to remain	1,440	1,274	911	536
	2023	2024	2025	2026							
Average headcount to remain	1,440	1,274	911	536							
<p><b>Blue Grass Chemical Activity</b></p>	<p>Blue Grass Chemical Activity will retain their current workforce until April 2025. A 6-month transition period will take place April 2025 – October 2025 to downsize the workforce from 161 to 25. The small support staff of 25 will remain to support the plant demilitarization process for another year, then those positions will also be eliminated.</p>										
<p><b>PEO ACWA</b></p>	<p>As positions are no longer required in the closure phase, a well-defined process exists for governmental personnel that may include transitioning to other positions within the federal government, retention incentives, reduction-in-force, and normal attrition. Release of employees will be a phased approach.</p>										
<p><b>BGAD Security dedicated to the Mission</b></p>	<p>The first release of employees will largely depend on when the Chemical Limited Area (CLA) is closed. 80% of security guards dedicated to the project will remain until mission completion (2026).</p>										





## Wage Data

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# Wage Data

- Average hourly base pay for key occupations across Bechtel Parsons Blue Grass, Blue Grass Chemical Activity, and PEO ACWA.
  - Plant Operations/Skilled Trade/Technicians - \$39.40/hour
    - Operators & Technicians - \$35.59/hour
  - Engineers/Design/Draft - \$63.57/hour
  - Industrial Hygiene/Safety Professional - \$41.13/hour
  - Quality Assurance/Quality Control - \$60.80/hour

## Breakdown by all Employers

Occupation Category	Number of Employees*
Administrative	82
Business Management/Payroll/Accounting/Finance	95
Emergency Response/Medical/EMT/Firefighting	43
Engineering/Design/Draft	116
I.T./Cybersecurity/Communications Systems	28
Industrial Hygiene/Safety Professional	64
Physical and Social Sciences	79
Plant Operations/Skilled Trade/Technician	922
Procurement/Warehouse/Logistics	55
Project Controls/Scheduling/Estimating	31
Quality Assurance/Quality Control	48
Security	186

\*The table does not include employees contracted with GP Strategies.

\*The table includes data for 236 of Battelle's 261 employees.



Occupation Category and Title	Madison County Existing Industry <sup>1</sup>	2022 Bluegrass LWA Occupational Employment and Wages <sup>2</sup>	Bechtel Parsons Blue Grass, excluding GP Strategies <sup>3</sup>	Blue Grass Chemical Activity <sup>3</sup>	PEO ACWA Field Office <sup>3</sup>	BGAD – Security
Administrative Services	\$16.91 - \$30.32		\$17.65 - \$132.27	\$25.96 - \$49.52		
<b>Business Management/Payroll/Accounting/Finance</b>	\$15.90 - \$48.09	\$39.06 - \$50.16	\$21.75 - \$99.76	\$31.76 - \$49.52	\$61.00 - \$71.00	
Program/Project Management			\$77.33 - \$80.50		\$61.00 - \$71.00	
Accounting	\$15.90 - \$48.09	\$23.75 - \$29.73	\$22.70 - \$41.23			
Financing		\$48.41 - \$94.59	\$65.07 - \$171.43			
Human Resources, Mgmt.		\$62.34 - \$74.53	\$75.48 - \$82.31			
Human Resources, Other	\$21.63 - \$48.09	\$23.89 - \$28.62	\$21.75 - \$59.68			
<b>Emergency Response/Medical/EMT/Firefighting</b>			\$31.73 - \$127.40			
Physician		N/A	\$71.89 - \$127.40			
Nurse		\$37.38 - \$40.61	\$53.92			
Emergency Medical Technicians and Paramedics		\$23.25 - \$25.49	\$31.72 - \$33.80			
<b>Engineering/Design/Draft</b>	\$22.70 - \$48.09	\$30.38 - \$76.99	\$32.88 - \$106.79		\$48.00 - \$81.00	
<b>I.T./Cybersecurity/Communications Systems</b>	\$25.84 - \$48.09		\$32.60 - \$83.95	\$37.98 - \$49.52		
<b>Project Controls/Scheduling/Estimation</b>			\$50.14 - \$95.45	\$37.98 - \$58.65	\$50.00 - \$58.00	
<b>Quality Assurance/Quality Control</b>	\$12.50 - \$48.09		\$30.15 - \$132.40	\$37.98 - \$58.65	\$50.00 - \$58.00	
<b>Security</b>		\$16.13 - \$32.72	\$28.14 - \$84.51			\$19.29 plus

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<b>Industrial Hygiene/Safety Professional</b>	\$15.90 - \$31.25		\$32.75 - \$132.40	\$24.39 - \$58.65		
Hazardous Waste Coordinator				\$24.39 - \$28.51		
Toxic Material Handler/Explosive Inspector				\$24.30 - \$28.51		
Safety Specialist	\$25.74	\$38.85 - \$49.29	\$47.24 - \$132.40	\$37.98 - \$58.65		
Industrial Hygiene			\$32.75 - \$79.92			
Other ES&H	\$15.90 - \$31.25		\$37.14 - \$86.94			
<b>Physical and Social Sciences</b>		\$30.30 - \$51.93	\$67.38 - \$160.95	\$37.98 - \$49.52	\$50.00 - \$78.00	
<b>Plant Operations/Skilled Trade/Technician</b>	\$11.25 - \$48.09		\$17.88 - \$193.75	\$21.71 - \$69.23		
Janitorial			\$22.00 - \$25.23			
Maintenance	\$17.50		\$30.00 - \$65.37			
Operator	\$11.25 - \$30.00		\$27.24 - \$72.93			
Plant Manager			\$106.04			
Plant Operations Manager	\$19.00 - \$50.48	\$38.35 - \$48.49	\$68.16 - \$171.43	\$45.19 - \$69.23		
Sewage Plant Operator		\$23.86 - \$30.37	\$27.24 - \$40.94			
Technician	\$15.90 - \$37.43		\$17.88 - \$134.13	\$21.71 - \$41.33		
<b>Procurement/Warehouse/Logistics</b>	\$14.00 - \$31.25		\$21.42 - \$72.29	\$21.15 - \$49.52		
Inventory Management (includes shipping/receiving)	\$14.50 - \$31.25	\$20.52 - \$24.73	\$29.42 - \$72.29	\$25.96 - \$34.13		
Logistics Management	\$14.65		\$36.05 - \$61.81	\$21.15 - \$49.52		

1. Madison County Existing Industry data was collected from leading employers in Madison County and is reflective of 2022 base wages.

2. Bluegrass LWA Occupational Employment and Wage Estimates was provided by the Kentucky Center for Statistics, Workforce Intelligence Branch, and is reflective of 2021 wage data for 75<sup>th</sup> percentile hourly and experienced hourly wages. Entry level, 25<sup>th</sup> percentile hourly, and median hourly wage data is not included in the numbers below.

3. Bechtel Parsons Blue Grass, Blue Grass Chemical Activity, and PEO ACWA data was collected from each employer and is reflective of 2022 base wages. Hazard pay and premium pay is not included in the hourly wages.

