

# **SUMMARY OF THE RCRA HAZARDOUS WASTE CLEANUP PROGRAM'S ECONOMIC BENEFITS STUDY AND RESEARCH METHODOLOGY**

**(Based on 2024 Data)**

**U.S. Environmental Protection Agency  
Office of Land & Emergency Management  
Office of Resource Conservation & Recovery**

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## **Summary of the 2024 RCRA Hazardous Waste Cleanup Program's Economic Benefits Study and Research Methodology**

The 2024 RCRA economic benefits study provides current, reliable business-related information for a subset of RCRA Hazardous Waste Cleanups (otherwise referred to as Corrective Action (CA) facilities per the RCRA statute), that are now in reuse or continued use after cleanup. The project included these main components:

- Identification of RCRA CA facilities in reuse and continued use that have activities that support businesses, employ people and/or generate sales revenues.
- Verification and/or update of economic information for previously identified businesses.
- Discovery of previously identified businesses that may have closed or moved off-site.
- Identification of new businesses located at the facilities using the methodology developed for similar research on Superfund sites.
- Collection of economic information for businesses using reputable economic databases and websites. Examples of the types of business information gathered include but are not limited to: business names and addresses, business type, number of employees working at the businesses, annual sales revenues, and estimated annual employment income.
- Quality control/quality assurance review of economic data collected during the effort.

This document includes a summary of the RCRA CA economic information collected in 2024. Results from prior-year research efforts are included in previous annual Summary reports.

Table 1 shows the economic totals for the 2024 RCRA CA economic research effort.

**Table 1. Summary of 2024 RCRA CA Economic Benefit Estimates**

Year	Number of Facilities Researched with Economic Data <sup>a</sup>	Number of Businesses	Jobs	Annual Sales	Estimated Annual Employment Income
2024	168	1,640	176,981	\$76.4 billion	\$19.3 billion

**Notes:**

a. Federal and non-federal RCRA CA facilities are included in this study. Federal facilities are those for which a federal government agency is responsible for cleanup, and/or the facility is owned or operated by a federal agency. The economic totals in this table highlight the results of this limited study and represent only a small percentage of actual economic activity currently occurring at all remediated RCRA CA facilities nationwide.

## **2024 Project Summary**

The goals of the 2024 project were to update economic information for 126 previously researched facilities and to identify and conduct economic research for additional RCRA CA facilities that support revenue-generating businesses. A total of 42 additional facilities were identified for economic research. They were identified by a review of the publicly available, EPA-approved boundaries found on the EPA's [Cleanups in My Community](#) website. In 2024, economic research was conducted for a total of 168 RCRA CA facilities.

The facilities researched included a mix of facilities in continued use (businesses that operated before, during and after cleanup) and new reuse (reuse/development subsequent to cleanup). Some facilities support a wide range of uses that result in significant economic activity. More typically, facilities support one or a few uses associated with moderate economic activity. Another goal of the facility selection for this effort was to highlight a mix of those different types of facilities – illustrating some of the highest-profile redevelopment successes, as well as identifying facilities that represent average reuse/continued use scenarios.

Economic benefits associated with facilities in continued use highlight how cleanup performed under RCRA CA can facilitate safe, continued operations of long-time facility businesses, while also protecting human health and the environment through remediation. While many continued-use cases and their associated economic impacts may not be considered high profile, they represent a number of RCRA CA facilities that currently support businesses – making them a crucial contributor to the overall economic impacts associated with RCRA CA facility use.

Examples of facilities in continued use include Bingham and Taylor in EPA Region 3 and the ERDC – Waterways Experiment Station in EPA Region 4. A cast iron foundry and underground utilities infrastructure manufacturer has operated at the Bingham and Taylor facility for over 175 years. It employs 150 people and generates an estimated \$18 million in annual sales. In October 2023, Virginia's governor visited Bingham & Taylor to celebrate its achievements in sustainability and job creation, noting the company's contributions to the resurgence of manufacturing in Virginia. A U.S. Army Corps of Engineers Waterways Experiment Station has operated at the ERDC – Waterways Experiment Station since 1929. In 1978, the Corps founded the Engineer Research and Development Center at the site. It is the premier research and development center for the Corps, the U.S. Army and the Department of Defense. It employs about 1,970 people who earn an estimated \$160 million in annual income.

Economic impacts associated with facilities in new reuse highlight how cleanup under RCRA CA can set the stage for a wide range of new development. These projects can often attract new businesses, bolster local economies and result in increased property values. In some cases, reuse priorities are incorporated into the remedial design process, resulting in cleanups that directly facilitate reuse. Such facilities serve as models of what is possible when the EPA and RCRA-

authorized states, other state and local entities, and facility owners and operators work together to address cleanup and consider reuse priorities early in the cleanup process.

Examples of high-profile RCRA CA facilities that support new reuse include the Volunteer Army Ammunition Plant in EPA Region 4 and International Steel Group (ISG) Tecumseh Redevelopment Incorporated (formerly Bethlehem Steel) in EPA Region 3. The Volunteer Army Ammunition Plant was built to support the World War II effort and produced TNT. Today, Amazon, Volkswagen and other commercial and industrial businesses operate on-site. Site businesses employ over 10,000 people and generate an estimated \$3.8 billion in annual sales. The International Steel Group (ISG) Tecumseh Redevelopment Incorporated (formerly Bethlehem Steel) site includes what remains of a sprawling former integrated steel manufacturing complex. Today, the area supports a wide range of new commercial and industrial uses, including multiple distribution centers and manufacturers, retail outlets, a casino resort, an intermodal railyard, and a museum of industrial history. Businesses at the site employ over 4,800 people and generate nearly \$1 billion in estimated annual sales.

Table 2 lists facility-specific economic totals for the 168 RCRA CA facilities researched in 2024, with the 42 newly researched RCRA facilities in italics. It should be noted that these 168 RCRA CA facilities researched to date represent only a small sample of the overall number of RCRA CA facilities that exist across the U.S.

**Table 2. 2024 Facility-Level RCRA CA Economic Totals**

Facility Name	EPA Region	State	Number of Businesses	Jobs	Annual Sales <sup>a</sup>	Annual Employment Income
Acushnet Co Titleist Golf Div	1	MA	7	39	\$3,592,000	\$2,475,044
<i>AK Steel Corp</i>	7	MO	5	565	\$415,038,101	\$47,332,168
American Hoist & Derrick Co.	1	ME	20	683	\$220,906,123	\$67,539,992
American Wood - Division of Powe Timber	4	MS	1	7	\$5,470,000	\$380,744
<i>Aptiv Services, LLC</i>	4	MS	2	480	\$397,226,000	\$28,379,520
<i>Areva Np Inc.</i>	10	WA	2	705	\$177,599,000	\$70,930,600
<i>Ashcroft Inc.</i>	1	CT	1	450	\$83,908,922	\$37,112,400
Austin-Bergstrom Airport (Former Bergstrom AFB)	6	TX	82	3,833	\$507,280,074	\$150,126,288
<i>BAE Systems Land and Armaments LP (Formerly: United Defense, LP)</i>	3	PA	1	1,489	\$218,594,000	\$157,488,552
<i>BAE Systems Norfolk Ship Repair</i>	3	VA	1	1,026	\$192,808,156	\$79,281,072

Facility Name	EPA Region	State	Number of Businesses	Jobs	Annual Sales <sup>a</sup>	Annual Employment Income
Bannister Transformation & Development LLC BTD LLC	7	MO	4	370	\$16,657,600	\$43,926,792
BASF Agricultural Products of Puerto Rico	2	PR	1	150	\$35,020,000	\$6,973,200
<i>BASF Corp. Hannibal Site</i>	7	MO	1	255	\$296,040,000	\$23,854,740
BASF Corp. (Wyandotte)	5	MI	3	1,173	\$1,439,872,351	\$98,174,596
BASF Freeport	6	TX	1	900	\$861,226,000	\$111,618,000
Bettis Atomic Power Laboratory	3	PA	1	2,500	NA	\$399,360,000
Bingham and Taylor	3	VA	1	150	\$17,891,000	\$11,910,600
Blue Ridge Talc Company, Inc.	3	VA	1	16	\$9,930,000	\$1,462,656
Boeing A&M Developmental Center	10	WA	1	300	\$147,489,000	\$41,043,600
<i>Boeing Everett</i>	10	WA	11	35,402	\$16,102,148,260	\$4,743,812,684
<i>Boise Mobile Equipment</i>	10	ID	1	9	\$681,545	\$449,748
<i>Bosselman Travel Center</i>	7	NE	6	23	\$13,692,500	\$989,352
BP Casper Former Refinery	8	WY	40	146	\$155,087,306	\$12,294,256
BP Cherry Point Refinery	10	WA	1	400	\$171,400,000	\$73,299,200
Bristol Metals LLC	4	TN	1	400	\$49,230,000	\$24,003,200
<i>Bronson Homer D Co.</i>	1	CT	6	27	\$2,986,940	\$1,684,956
Brooks City-Base (Former Brooks AFB)	6	TX	114	2,102	\$504,373,626	\$169,321,360
Burlington Environmental Inc. (Port of Seattle Terminal 91)	10	WA	10	445	\$59,365,006	\$40,170,520
<i>Century Brass Formerly Known as</i>	1	CT	89	729	\$139,396,611	\$22,091,732
<i>Chestnut Run Plaza - Dupont Specialty Products Usa, LLC</i>	3	DE	5	2,833	\$378,637,340	\$377,728,520
Chevron Oil Co. @ Perth Amboy Refinery	2	NJ	1	6	\$14,700,000	\$676,104
Chevron Products Company	4	MS	1	2,510	\$12,291,147,667	\$393,126,240
City of Waterbury	1	CT	1	200	NA	\$13,000,000
Clean Harbors Arizona	9	AZ	1	13	\$3,265,240	\$1,061,996
Cleveland-Cliffs Steel Corp., Butler Works	3	PA	2	1,201	\$942,809,286	\$86,944,780
Cleveland-Cliffs Steelton LLC	3	PA	5	614	\$463,483,653	\$65,234,104
<i>CMC Parcel 2 Cleanup Project Number 725</i>	7	IA	2	18	NA	\$1,020,240

Facility Name	EPA Region	State	Number of Businesses	Jobs	Annual Sales <sup>a</sup>	Annual Employment Income
<i>Collis Inc.</i>	7	IA	2	406	\$36,054,090	\$21,769,072
Colonial Bronze Company	1	CT	1	55	\$9,580,000	\$3,855,280
<i>Coltsville Redevelopment Company LLC</i>	1	CT	12	313	\$25,165,686	\$30,266,496
Columbia Helicopters Inc.	10	OR	1	400	\$35,170,000	\$22,339,200
Conewago Equities	3	PA	5	118	\$28,688,333	\$8,506,524
Container Properties LLC	10	WA	1	41	NA	\$3,110,588
<i>Crown Cork &amp; Seal (USA) Inc.</i>	7	NE	3	100	\$28,430,000	\$4,109,040
DC Department of Corrections (Formerly: Lorton Correctional Complex)	3	VA	33	680	\$43,623,940	\$39,100,360
<i>Delbar Products Inc.</i>	3	PA	2	1	\$500,000	\$62,764
Delphi Packard Electric Systems	4	MS	1	100	\$34,050,000	\$6,656,000
Denver Federal Center	8	CO	8	8,578	\$637,574,966	\$1,032,696,496
Duke Balt Vice General Motors Baltimore Assembly	3	MD	7	3,349	\$856,370,154	\$158,559,648
Eagle Natrium LLC	3	WV	6	46	\$10,723,150	\$4,342,832
Eaton Dba Sorensen Park Plaza	7	NE	24	443	\$43,952,010	\$12,100,088
<i>Edge Water Treating, LLC</i>	4	NC	6	51	\$1,234,000	\$5,243,004
Edgewater Steel Company	3	PA	6	72	\$9,426,202	\$7,996,872
EEIDD (Former England Air Force Base)	6	LA	23	305	\$51,989,122	\$14,020,448
Encycle Texas	6	TX	1	13	\$150,769,048	\$1,433,120
ERDC- Waterways Experiment Station	4	MS	1	1,970	NA	\$159,601,520
Ethyl Capitol Products Corporation	3	PA	6	397	\$56,511,000	\$14,322,724
Exelon Corp. (Chem Clear Incorporated)	3	PA	7	368	\$131,658,185	\$37,982,932
Fairchild Republic Co.	2	NY	28	844	\$331,286,270	\$34,177,364
Federal Cartridge Co. CCI	10	ID	1	1,200	\$247,452,000	\$69,950,400
Fisher Scientific	2	NJ	1	10	\$22,528,000	\$1,051,440
Florida Tile Inc.	4	KY	2	84	\$19,875,867	\$5,531,968
<i>FMC Agricultural Products Group</i>	3	MD	8	514	\$164,126,957	\$29,174,132
Former Allison Plant 2 / Speedway Redevelopment Commission	5	IN	4	84	\$26,298,150	\$5,242,016

Facility Name	EPA Region	State	Number of Businesses	Jobs	Annual Sales <sup>a</sup>	Annual Employment Income
Former Appliance Park East (General Electric Company)	3	MD	11	251	\$69,768,897	\$15,740,400
Former GM/Delphi Energy and Engine / Anderson Redevelopment Commission	5	IN	5	81	\$3,128,550	\$6,178,484
Former Kelly AFB	6	TX	69	3,611	\$1,266,038,909	\$409,501,092
Former Lawrence Nitrogen Plant	7	KS	4	265	\$82,902,783	\$13,268,060
<i>Frit Industries Inc.</i>	7	IA	2	15	\$14,049,333	\$1,265,940
Gates Rubber Co.	7	IA	2	5	\$410,200	\$509,184
<i>GE Aviation</i>	10	WA	1	1,900	\$960,000,000	\$201,552,000
General Dynamics Armament & Tech Product	1	VT	6	83	\$13,074,940	\$9,668,256
General Electric Co.	1	CT	1	150	NA	\$12,152,400
General Services Administration	3	DC	54	6,869	\$100,420,681	\$1,009,575,632
<i>Great Plains Development Authority/Great Plains Industrial Park</i>	7	KS	2	53	\$13,106,280	\$1,984,528
GTE Operations Support Incorporated (OSI)	9	CA	4	13	\$3,099,000	\$1,194,388
Harley-Davidson Motor Company Incorporated	3	PA	2	1,070	\$955,308,399	\$73,924,240
Henniges Automotive Iowa Inc.	7	IA	1	500	\$22,220,000	\$30,602,000
<i>Holcim (US) Inc./Geocycle LLC</i>	4	MS	2	19	\$3,742,000	\$994,916
Hollingsworth & Vose Fiber Co. Fmr Evanite	10	OR	1	80	\$27,294,118	\$3,065,920
Honeywell Baltimore Inner Harbor	3	MD	19	3,125	\$3,275,791,678	\$595,200,580
<i>Hop Union USA Inc. 1 St. Ave. <sup>b</sup></i>	10	WA	1	NA	NA	NA
Howe Furniture Corp	1	CT	3	64	\$7,906,000	\$2,982,304
Hutchinson Sealing Systems	1	NH	1	150	\$117,166,000	\$9,882,600
IBM Corporation (Manassas)	3	VA	9	3,112	\$1,363,263,632	\$395,243,992
IBM Corporation (Poughkeepsie)	2	NY	1	3,000	\$657,618,710	\$502,632,000
International Paper - Franklin Mill	3	VA	3	241	\$88,014,872	\$21,548,020

Facility Name	EPA Region	State	Number of Businesses	Jobs	Annual Sales <sup>a</sup>	Annual Employment Income
<i>International Steel Group (ISG) Tecumseh Redevelopment Incorporated (Formerly: Bethlehem Steel)</i>	3	PA	71	4,894	\$994,644,771	\$299,091,728
Invista Seaford Plant	3	DE	2	400	\$368,228,571	\$53,643,200
Irving Tanning Co.	1	ME	1	1	\$870,000	\$28,964
ISP Chemicals LLC	4	KY	2	25	\$10,444,553	\$2,724,124
<i>John Deere Des Moines Works</i>	7	IA	1	1,700	\$1,982,642,000	\$150,987,200
John Deere Waterloo Works - Drivetrain Operations	7	IA	15	1,680	\$710,530,544	\$153,394,020
Keesler AFB	4	MS	17	9,507	\$6,802,933	\$666,531,632
Kelly-Springfield Tire Company	3	MD	11	580	\$18,197,090	\$50,242,608
Kimberly-Clark Berkely Mills	4	NC	1	250	\$151,896,000	\$22,789,000
<i>Koppers Inc.</i>	4	KY	1	5	\$2,647,000	\$251,680
Kosmos Cement Company, LLC	4	KY	1	150	\$21,810,000	\$12,183,600
M1 Concourse LLC (Formerly Pontiac Center Point)	5	MI	1	8	\$145,420	\$181,376
Marion County Dept of Public Works	10	OR	2	132	NA	\$11,952,096
Martinsville Dupont	3	VA	3	26	\$221,580	\$1,967,368
Masonite Corporation	4	MS	2	441	\$139,704,000	\$26,244,816
Mcdonald Ay Disposal Site - Former Site Of	7	IA	3	91	\$21,578,462	\$4,922,008
Microsemi Consortium Facility/Microsemi Consortium <sup>b</sup>	8	CO	1	NA	NA	NA
Moog Components Group (Fka Litton Systems Inc., Clifton Precision)	4	NC	1	400	\$89,263,000	\$31,179,200
Naval Weapons Industrial Reserve Plant (NWIRP) Dallas	6	TX	4	625	\$185,836,729	\$26,260,000
<i>ND Paper Inc. - Rumford Division</i>	1	ME	4	470	\$309,198,000	\$45,884,540
Ninigret Technologies Park, Lc.	8	UT	53	1,608	\$855,605,502	\$134,559,256
Novartis Pharmaceuticals Corp.	2	NJ	1	4,100	\$2,449,531,273	\$918,252,400

Facility Name	EPA Region	State	Number of Businesses	Jobs	Annual Sales <sup>a</sup>	Annual Employment Income
Nucor Corporation (Nucor Steel - Nebraska)	7	NE	3	476	\$225,424,839	\$52,622,336
Nutrien Ag Solutions	7	KS	1	20	\$1,855,000	\$804,960
Onyx Environmental Services	9	AZ	1	25	\$4,930,000	\$1,979,900
Orbital ATK (Formerly: Alliant Techsystems Operations LLC)	3	MD	1	381	\$154,776,535	\$53,413,152
Owens Corning Anderson	4	SC	1	425	\$20,357,000	\$31,138,900
PBI Gordon Corp	7	KS	1	90	\$26,790,000	\$5,690,880
Pendleton Woolen Mills	10	WA	1	300	\$44,195,000	\$11,044,800
Penick Forest Products, Inc.	4	MS	1	25	\$2,380,000	\$2,293,200
Pfizer Inc.	1	CT	4	2,717	\$1,750,827,341	\$250,705,468
Phillips Electronics - The Genie Company Site	4	VA	1	33	\$7,850,000	\$2,122,692
Polaroid Corp Dba	1	MA	12	413	\$100,287,173	\$25,801,412
Precision Fabricating and Cleaning	4	FL	1	80	\$15,360,000	\$5,016,960
Racer Moraine	5	OH	10	2,806	\$1,105,127,341	\$185,254,784
Radford Army Ammunition Plant	3	VA	1	1,275	\$371,449,301	\$99,383,700
Railway Maintenance Products Division (Formerly: Protec)	3	PA	4	137	\$38,488,818	\$10,861,032
Remington Arms Company, LLC	6	AR	2	1,001	\$384,890,000	\$63,684,088
Revere Transducers Inc.	1	CT	4	118	\$100,535,000	\$3,062,540
Rohm & Haas Chemicals LLC	3	PA	3	76	\$76,899,158	\$7,647,068
Safety Kleen Systems Inc. Auburn 118101	10	WA	3	4	\$568,850	\$534,404
Safety Kleen Systems Inc. Lynnwood 709201	10	WA	3	5	\$1,666,000	\$514,280
Safety-Kleen Systems Inc.	4	MS	1	8	\$2,439,000	\$537,056
Safety-Kleen Systems, Inc. (Jackson)	4	MS	1	6	\$2,318,571	\$360,984
SBD Property Holdings	3	PA	1	51	\$1,381,000	\$3,818,880
Seagate Technology (Formerly Imprimis)	7	NE	1	71	\$4,390,000	\$3,861,832
Sentinel Industries, Inc.	6	AR	1	12	\$5,744,000	\$674,544
Sparrows Point Terminal LLC	3	MD	30	4,555	\$1,674,038,739	\$216,268,728

Facility Name	EPA Region	State	Number of Businesses	Jobs	Annual Sales <sup>a</sup>	Annual Employment Income
SSA Tacoma, Inc.	10	WA	3	1	\$208,500	\$60,892
Sulfco (Former Tronox Pigments Site)	4	GA	4	29	\$8,350,000	\$3,531,216
<i>Sunflower Redevelopment LLC</i>	7	KS	5	50	\$6,978,049	\$3,229,200
Superior Tube Co Inc.	3	PA	1	200	\$51,180,000	\$23,483,200
Syngenta Crop Protection	6	LA	8	865	\$258,221,394	\$108,629,196
<i>Teknicircuits Inc.</i>	1	CT	1	10	\$5,048,000	\$600,600
Tektronix	10	OR	45	2,651	\$711,596,957	\$318,519,552
<i>Texas Instruments Incorporated</i>	1	ME	2	725	\$143,254,198	\$66,352,000
The Chemours Company	4	MS	3	510	\$491,539,058	\$46,392,840
<i>Thomas and Betts Corporation</i>	3	PA	1	16	\$5,270,000	\$939,328
Timco Inc.	4	MS	1	35	\$4,360,000	\$1,903,720
Titan Energy Park	3	PA	13	25	\$7,984,510	\$1,565,148
Tronox, LLC	4	MS	1	425	\$186,403,509	\$24,774,100
Tyco Electronics (TE Connectivity)	9	CA	2	2,800	\$5,611,147,258	\$981,198,400
U S M Machinery Division	1	MA	252	3,402	\$766,368,667	\$309,954,840
U.S. Coast Guard Base Support Unit Kodiak	10	AK	9	1,162	\$12,288,000	\$144,995,136
U.S. Electrical Motors	4	MS	2	3	NA	\$145,392
U.S. Naval Weapons Industrial Reserve Plant (NWIRP) McGregor	6	TX	8	789	\$344,476,316	\$109,630,924
U.S. Steel Corporation MVW Fairless Works	3	PA	33	1,103	\$539,721,354	\$90,641,356
Ultra Yield Micronutrients	10	WA	1	3	\$2,410,000	\$268,320
Union Pacific Railroad	7	NE	18	328	\$49,585,590	\$10,452,572
UTC Fire and Security Americas Corporation, Inc.	1	ME	1	150	\$8,936,170	\$8,486,400
Viasystems Technologies Corporation	3	VA	53	1,150	\$218,160,240	\$32,710,028
Voestalpine High Performance Metals Corporation - South Boston Plant	3	VA	1	66	\$89,150,000	\$4,042,896
Volunteer Army Ammunition Plant	4	TN	23	10,120	\$3,754,369,068	\$816,327,460
<i>W.L. Gore and Associates</i>	3	DE	1	60	\$29,880,000	\$4,626,960

Facility Name	EPA Region	State	Number of Businesses	Jobs	Annual Sales <sup>a</sup>	Annual Employment Income
Waterbury Brownfields Redev LLC	1	CT	5	37	\$6,029,520	\$3,304,600
<i>Waterloo Industries Inc. - Former Site Of</i>	7	IA	2	3	\$1,720,000	\$140,348
Whiting & Davis Co.	1	MA	5	21	\$4,982,640	\$2,385,136
Willow Run Arsenal of Democracy Landholdings LP	5	MI	2	5	NA	\$509,340
Wolverine Tube, Inc.	4	AL	2	38	\$47,370,000	\$2,544,152
Woodshaft	4	MS	2	203	\$30,261,680	\$5,063,136
Yarde Metals	1	CT	2	425	\$165,446,921	\$31,161,000
<b>Totals <sup>c</sup></b>			<b>1,640</b>	<b>176,981</b>	<b>\$76,393,779,112</b>	<b>\$19,269,087,604</b>

**Notes:**

- a. While sales values typically exceed estimated totals of annual employment income, annual reported sales can sometimes be lower than estimated annual income. This atypical condition of estimated income exceeding sales can be a result of business type (i.e., government entities that do not generate sales revenue), business conditions, estimated business wages not accurately reflecting actual wages for the facility-specific business, annual sales being underreported, a business loss for the year, or a combination of those factors.
- b. Economic research has confirmed that a single business operates at this RCRA CA facility; however, economic information (jobs, sales and income) is not available for the business.
- c. The 2024 economic totals in this table highlight the results of this limited study and represent only a small percentage of actual economic activity currently occurring at all remediated RCRA CA facilities nationwide.

NA = not available. Facilities with "NA" in economic total columns indicate that economic information for the confirmed facility business(es) could not be found.

Facilities listed *in italics* were newly identified and subject to economic research for the first time in 2024.

**Factors that contributed to the 2024 RCRA CA economic totals are discussed below.**

***Availability of Reuse Information Through Online Sources***

The study obtained business data from reputable economic information databases, such as Dun & Bradstreet (Hoovers) and Reference Solutions. In some cases, economic research will confirm that a specific business operates at a facility (for example, a business website or facility visit will confirm an on-site location); however, online economic data sources may not report business information for that business. In those cases, the business is identified as a facility business, but economic data are not included. This is an example of how data availability from online sources can impact the capture of economic information for facility businesses.

***Economic Business Conditions***

Broader national and regional economic conditions affecting businesses are usually independent of facility-related factors, such as cleanup and redevelopment efforts. However, such

independent economic conditions can sometimes play a major role in the economic activity at facilities. The 2024 RCRA CA economic totals provide a snapshot in time of economic activities at the selected subset of facilities.

## **Economic Research Methodology Overview**

The ten EPA Regions assisted in identifying facilities appropriate for this study. Appropriate facilities include those that have been subject to RCRA CA and have activities that support businesses, employ people or generate sales revenues. The goal of facility selection was to capture a range of different types and sizes of RCRA CA facilities, including a mix of facilities in continued use and new reuse, facilities that support a wide range of uses, and facilities that support one or a few uses associated with moderate economic activity. Economic research focuses solely on areas within established RCRA facility boundaries. Facility boundaries used for economic research were provided by the respective EPA Regions or obtained from the EPA's [Cleanups in My Community](#) website. In cases where the Regions provided facility boundary figures, GIS was used to digitize facility boundaries to facilitate economic research. Below is a general summary of the economic research methodology used for the economic benefits study of RCRA CA facilities.

Digitized facility boundaries are overlaid on aerial maps to identify facility businesses. Aerial imagery and street view images of facility areas allow researchers to identify facility uses accurately. Facility businesses can also be identified through existing documents that highlight reuse, such as case studies and fact sheets, and through online business directories. Economic information is then collected for facility businesses using economic databases and websites. Examples of the types of business information gathered include, but are not limited to, business names and addresses, business type, the number of employees working at the businesses, annual sales revenues and estimated annual employment income.

The economic data information sources used include the Dun & Bradstreet (Hoovers) and Reference Solutions economic databases, the Manta website, the Bureau of Labor Statistics website (used to obtain wage information to calculate income estimates), business publications (such as annual reports) and online research (including business websites and news articles).<sup>1</sup> The economic databases have tools that help identify all businesses located within facility boundaries (for example, the databases can identify all businesses at a confirmed facility address).

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<sup>1</sup> Any mention of trade names, manufacturers or products in this document does not constitute an endorsement by the United States Government or the U.S. Environmental Protection Agency. The EPA and its employees do not endorse any commercial products, services or entities.

The economic research process emphasizes the use of conservative economic values and includes multiple rounds of QA/QC review. The collection of economic data for this analysis also includes tracking the source of each piece of data for every business operating at each facility to allow for additional value verification, if needed. PDF copies of data sources are created and saved to further support key pieces of data. For example, dated PDF copies of information source webpages are saved for all businesses that employ over 500 people or generate over \$1 billion in sales. In addition, for businesses that employ over 500 people or generate more than \$1 billion in annual sales, further attempts are made to identify more supporting information to confirm those values. Additional supporting information can include business-authored annual reports, information from business websites, news articles and other resources. PDF copies of those additional supporting information sources are also saved for reference, if needed. QA/QC review is performed for facility-level and business-level data. QA/QC review involves going back through the research process steps to check the accuracy of each piece of economic information against the original information sources. Business-level economic data include information for individual facility businesses. Facility-level economic data are a summation of available business-level data for a given facility.

The QA/QC review process involves reviewing economic information for each facility. The final QA/QC review phase includes an overarching review of the entire economic dataset. All business-level and facility-level economic data are compiled to identify outliers and minimum, maximum and median values for each type of value, and to make sure the values are appropriate. All large economic values are reviewed for accuracy and to ensure the documentation of supporting evidence to confirm the values. Documentation of QA/QC review steps is saved for future reference.

After identification of all facility businesses and QA/QC review, economic totals for individual businesses are added to calculate facility-level economic totals. Following completion of economic research at all facilities, facility-level economic totals are added to calculate an estimate of the national beneficial economic effects associated with the cleanup and reuse of the selected subset of RCRA CA facilities.

## **Conclusion**

The 2024 RCRA CA economic research effort enabled the update and capture of business data and reuse information for a subset of RCRA CA facilities in continued use and new reuse. The results quantify some of the economic benefits associated with new and established businesses operating at remediated RCRA CA facilities across the nation. Looking forward, options to expand economic research efforts include updating business information for the facilities researched to date and expanding the inventory of facilities researched. Continued research efforts will also facilitate the tracking of facility business data and reuse information over time.