

Executive Summary

The 15-acre Aidex Corporation Superfund site in Mills County, Iowa, was once home to a plant that made herbicides and pesticides. Spills and a fire contaminated groundwater and soils. The combined efforts of EPA and the Iowa Department of Natural Resources (DNR) led to the site's successful cleanup and reuse. Today, three active businesses are located on site. This case study explores the area's cleanup and reuse, illustrating the beneficial effects of Superfund redevelopment in action.

Beneficial Effects

- On-site businesses employ an estimated 95 people and generate \$3.8 million in estimated annual income for the local community.
- The estimated value of on-site properties is over \$1.4 million.
- In 2015, site properties generated over \$31,000 in property tax revenues.

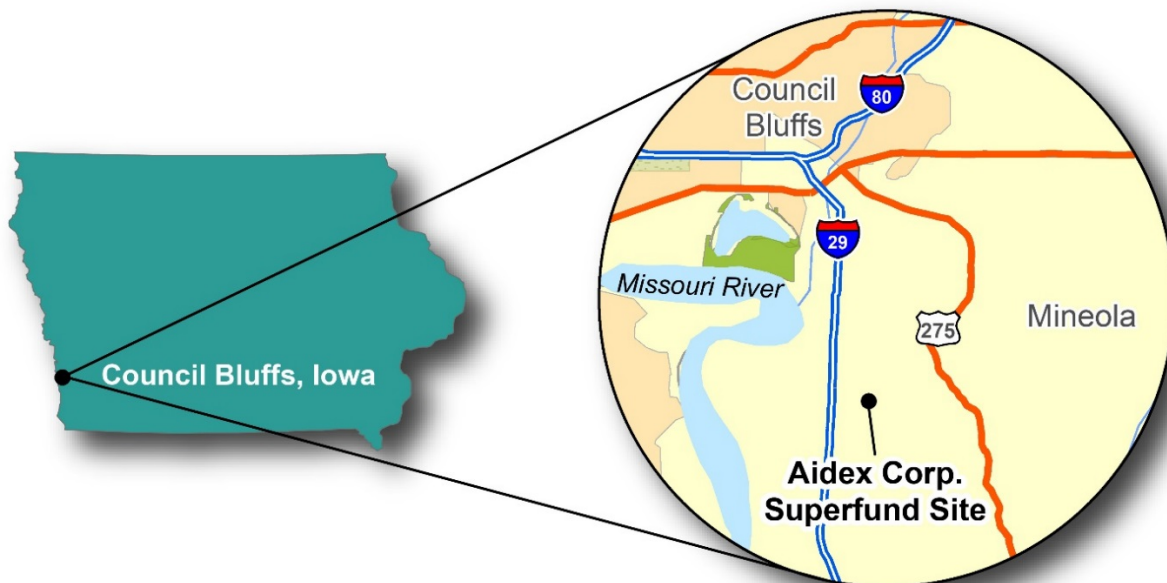


Figure 1. Location map for Aidex Corporation site near Council Bluffs, Mills County, Iowa.

Introduction

When a site is restored for reuse, it can revitalize a local economy with jobs, new businesses, tax revenues and spending. This case study captures the beneficial effects of redevelopment at the Aidex Corporation Superfund site.

The site is located in Mills County, Iowa, about seven miles south of Council Bluffs. The City of Glenwood is the county seat. Both large and small buildings are located on site. The surrounding area includes roads, farms and forests. County Road L31/195th Street and a railroad line are located directly west of the site. Interstate 29 is located about a half-mile further west. County Highway 370 runs just north of the site. About 15,000 people live in Mills County.

Site History

From 1974 to 1980, Aidex Corporation operated an herbicide and pesticide manufacturing plant on site. Spills during the movement of materials from tank cars to formulation equipment as well as improper disposal and storage of process waste led to site contamination.

In 1975, the City of Glenwood purchased the site property from Aidex, using state industrial development bonds for the acquisition as well as for infrastructure improvements. The City then leased the property back to Aidex.

In 1976, an herbicide and pesticide formulation building caught fire. Runoff from water used to extinguish the fire led to additional contamination of groundwater and nearby soils.

In 1980, Aidex filed for bankruptcy. A bankruptcy sale took place in July 1981. At this time, about 3,400 drums of pesticides were stored in open areas on the site. A concrete pit within the destroyed building contained about 2 feet of contaminated water and a large underground storage tank also held contaminated materials. EPA placed the site on the Superfund program's National Priorities List (NPL) in 1983.

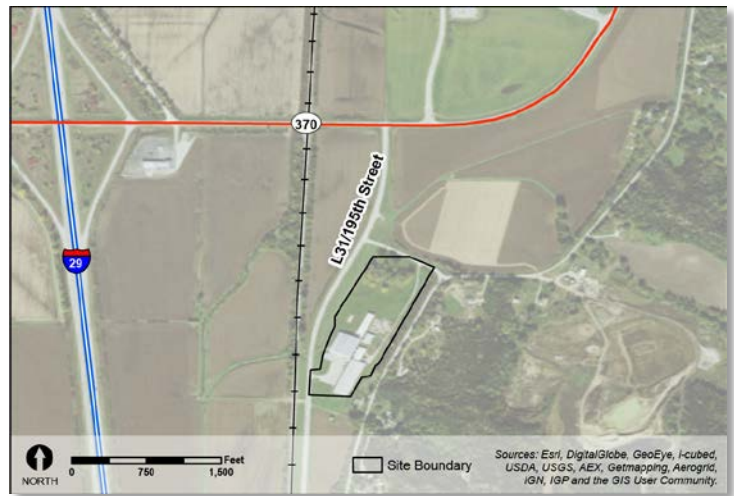


Figure 2: Aidex Corporation site and the site's surroundings.

Site Cleanup and Redevelopment

EPA led an interim cleanup of the site between 1982 and 1984. Actions included the temporary collection and storage of pesticide-contaminated solids, liquids and sludge, construction of an interceptor drainage ditch, decontamination of an underground tank and the basement remains of the building destroyed by fire, and off-site disposal of bulk liquid wastes and solid waste materials.

EPA selected the final cleanup plan for the site in September 1984. The cleanup included off-site disposal of heavily contaminated soils and backfilling excavated areas with clean fill, cleanup of four on-site buildings and a batching pit, installation of additional groundwater monitoring wells, and periodic groundwater monitoring. EPA

removed about 2,400 drums of pesticides and treated 21,193 cubic yards of soil and 187,000 gallons of contaminated water. EPA cleaned buildings' floors and walls using high-pressure steam and detergents. Cleanup actions started in 1986 and finished in 1987.

EPA then evaluated the need for additional cleaning of the buildings. Interior air sampling determined that residual contamination in the buildings did not pose a significant risk and no additional response actions were needed. The disposal of wastes at an off-site landfill eliminated the potential for exposure to hazardous materials at the site. Iowa DNR began annual groundwater monitoring in 1990. In October 1993, EPA deleted the site from the NPL. EPA continued to perform in-depth reviews of the site's remedy every five years to ensure its long-term protectiveness.

In 1994, the Town of Glenwood sold the site property to Omaha Processing Equipment Company. The company, which sold refurbished meat processing equipment, used the area to warehouse and showcase the equipment. After changes of ownership in 1997, SMV Industries began operating at the site. Active use of the site resulted in dramatically improved facility conditions. In the late 1990s, on-site buildings were remodeled and a new parking area provided.

In 2004, EPA determined that the site no longer represented a threat to human health and the environment and that no further in-depth reviews were required. By September 2006, all groundwater monitoring wells were closed in accordance with state regulations. In 2008, Iowa DNR signed a closure report indicating the state no longer conducted quarterly monitoring and that the state had taken the site off its Registry of Hazardous Waste or Hazardous Substances Disposal Sites.

Beneficial Effects

Businesses and Jobs

Today, SMV Industries continues to operate on site in addition to other businesses providing jobs and employment income for the community. SMV Industries was founded in 1963. One of its first products was the highly visible, triangular-shaped slow moving vehicle sign – a design that emerged out of collaborative efforts between a number of different organizations in the 1960s to help reduce rear-end collisions of motor vehicles. The sign was adopted by various institutes including the American Society of Agricultural Engineers and the American National Standards Institute and became popular nationally. SMV Industries has since expanded its product line to include small farm equipment, trailer jacks, bungee cords and high visibility flags and tape.¹ The business contributes an estimated \$993,000 in estimated annual employment income. Estimated annual business sales in 2014 exceeded \$3.8 million.


Two other businesses also operate on site. Countrywide Manufacturers produces signs and other industrial equipment.² This business contributes an estimated \$792,000 in estimated annual employment income and \$12.5 million in annual



Figure 3. On-site buildings where businesses operate.

¹ SMV Industries. <http://smvind.com/>

² MacRae's BlueBook. Countrywide Manufacturers. www.macraesbluebook.com/search/company.cfm?company=766354



sales. Phillips Manufacturing Midwest contributes an estimated \$1.9 million in estimated annual employment income.

Property Value and Tax Revenue

On-site properties help generate property tax revenues that support local governments. In 2015, the site generated over \$31,000 in tax revenues. The total estimated property value of the site in 2014 exceeded \$1.4 million. On-site businesses that produce retail sales and services also generate tax revenues through the collection of sales taxes, which support state and local governments.³

Conclusion

Collaborative efforts among EPA and the Iowa DNR made the site's cleanup possible, which in turn has supported the area's reuse and revitalization. Since 1997, business operations on site have provided jobs, supported the local economy and contributed tax revenues.



*For more information about EPA's Superfund Redevelopment Initiative (SRI), visit:
<http://www.epa.gov/superfund-redevelopment-initiative>.*

³ The combined sales tax rate in Mills County is 7 percent. For more information, see the Iowa Department of Revenue: <https://tax.iowa.gov/sites/files/idr/lostcou-6Percent.pdf>



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Reuse and the Benefit to Community Aidex Corporation Superfund Site

Technical Appendix

Employment Information for On-site Jobs

Information on the number of employees and sales volume for on-site businesses came from the Hoovers/Dun & Bradstreet ([D&B](#)) database. EPA also gathered information on businesses and corporations from D&B. D&B maintains a database of over 225 million active and inactive businesses worldwide. Database data include public records, financials, private company insights, extensive global information, telephone numbers and physical addresses. The Data Universal Numbering System (DUNS) number is a unique nine-digit identification number assigned by D&B to each business and its location within the database for identifying each business. The D&B database includes data reported by businesses. Accordingly, some reported values might be underestimates or overestimates. In some instances, business and employment information came from other business information websites.

Wage and Income Information for On-site Jobs

EPA obtained wage and income information from the U.S. Bureau of Labor Statistics (BLS). Part of the U.S. Department of Labor, the BLS is the principal federal agency responsible for measuring labor market activity, working conditions and price changes in the economy. Its mission is to collect, analyze and disseminate essential economic information to support public and private decision-making. All BLS data meets high standards of accuracy, statistical quality and impartiality.

EPA used the BLS Quarterly Census of Employment and Wages database to obtain average weekly wage data for businesses at the Aidex Corporation Superfund site. Average weekly wage data were identified by matching the North American Industry Classification System (NAICS) codes corresponding with each type of business with weekly wage data for corresponding businesses in Mills County. If weekly wage data were not available at the county level, EPA sought wage data by state or national level, respectively. In cases where wage data were not available for the six-digit NAICS code, EPA used higher-level (less-detailed) NAICS codes to obtain the wage data.

To determine the annual wages (mean annual) earned from jobs generated by each of the selected businesses at the Aidex Corporation Superfund site, EPA multiplied the average weekly wage figure by the number of weeks in a year (52) and by the number of jobs (employees) for each business.

Table 1. Aidex Corporation Superfund Site: Information for On-Site Organizations and Businesses

On-site Business	NAICS Code ^a	NAICS Title	Number of Employees ^b	Average Weekly Wage (2014) ^c	Annual Wage (Mean Annual) per Employee	Total Annual Income ^d	Annual Sales (2014) ^b
Countrywide Manufacturers	423990 ^e	Other Miscellaneous Durable Goods Merchant Wholesalers	20 ^f	\$762	\$39,624	\$792,480	\$12,500,000 ^f
Phillips Manufacturing Midwest	339950 ^g	Sign Manufacturing	50 ^h	\$764	\$39,728	\$1,986,400	NA
SMV Industries	339950	Sign Manufacturing	25	\$764	\$39,728	\$993,200	\$3,860,000
Total			95			\$3,772,080	\$16,360,000

^a NAICS code provided in the D&B database, unless otherwise noted.

^b Data are from the D&B database, unless otherwise noted.

^c Average weekly wage per employee is based upon BLS 2014 Average Weekly Wage data.

^d Total annual income figures were derived by multiplying “Number of Employees” by “Annual Wage (Mean Annual) per Employee.”

^e NAICS code provided by Amfibi Business Directory. <http://countrywide-manufacturers.council-bluffs.ia.amfibi.company/us/c/17478465-countrywide-manufacturers>.

^f Value provided by Amfibi Business Directory. <http://countrywide-manufacturers.council-bluffs.ia.amfibi.company/us/c/17478465-countrywide-manufacturers>.

^g NAICS code assumed.

^h Value provided by QueryUSA:

http://queryusa.com/?q=Manufacturers%20Agents%20%26%20Representatives&city=Council%20Bluffs%20Iowa&where=local_listing&bid=138312919-ST19.

NA – Not available.

Property Values and Local Tax Revenue Generated from Property Taxes

EPA obtained data on the most recently assessed values for property parcels at the Aidex Corporation Superfund site in July 2015 through property records accessible through Mills County’s online property appraisal database (<https://beaconbeta.schneidercorp.com>). EPA also used the database to obtain property tax information for the site parcels.

Table 2. Property Value and Tax Summary

Parcel ID No.	Parcel Address	Land Value (2014)	Improvements (2014)	Total Market Value of Land and Improvements (2014)	Total Property Tax (2015-2016)^a
026220010000000	51213 195th Council Bluffs	\$156,400	\$1,222,627	\$1,379,027	\$30,780
034550010000000	51213 195th Council Bluffs	\$34,575	NA	\$34,575	\$740
Total				\$1,413,602	\$31,520

^a Property tax amounts are payable in 2015-2016.

NA – Not applicable