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Reuse and the Benefit to Community
Vertac, Inc. Superfund Site

Executive Summary

In Jacksonville, Arkansas, the community and EPA have come together in a remarkable partnership that has led to the cleanup and successful reuse of the Vertac, Inc. Superfund site. Working together, parties developed a remedy that protected human health and the environment and enabled the reuse of this former chemical manufacturing facility. The City of Jacksonville recognized that the 193-acre site could provide space to address multiple local government priorities, including the need for a new recycling center, a fire department training facility, a driver training pad, a police firing range, new space for the Jacksonville Street Department, a recycling education park, a picnic area, and a police station. EPA worked with the community to ensure the compatibility of the site's remedy with these land uses.

Figure 1: Jacksonville's Recycling Education Park pavilion at the Vertac, Inc. Superfund site

Today, following the site's cleanup, most of these land uses are in place and construction is now underway for a new police and fire training center, City of Jacksonville Police Department facilities and a public safety building. This case study explores the site's cleanup and reuse, illustrating the opportunities, benefits and impacts of Superfund redevelopment in action.

Positive Impacts

- **The city's new recycling center serves 10,000 residents and is the area's only such facility. In total, 1.5 million pounds of materials are recycled each year. By diverting these materials from a landfill, the recycling center saves the city an estimated $50,000 annually. The center currently employs 20 people, providing annual employment income of about $760,000.**
- **The city's new Street Department facility also currently employs 20 people, providing annual employment income of about $1 million.**
- **Local police officers and agents from surrounding jurisdictions use the site's 2-acre firing range for training.**
- **New fire and police training facilities will help improve the city's International Organization for Standardization (ISO) rating, yielding lower insurance rates for the community. Three classrooms will provide training opportunities for the city's 64 full-time firefighters and 79 police officers and services for surrounding jurisdictions.**
- **The new community safety room will be able to shelter 594 local residents in the event of severe weather.**

Introduction

Superfund site remediation results in restored value to site properties and surrounding communities. Once a site property is ready for reuse, it can revitalize a local economy with jobs, new businesses, tax revenues and local spending. This case study captures the on-site and community impacts of new development at the Vertac, Inc. Superfund site.

The site is located in central Jacksonville in Pulaski County, Arkansas, about 15 miles northeast of Little Rock. Residential areas border the site to the south and east. An industrial area is located west of the site. Little Rock Air Force Base borders the site to the north. According to 2010 Census data, Jacksonville has a population of 28,364.

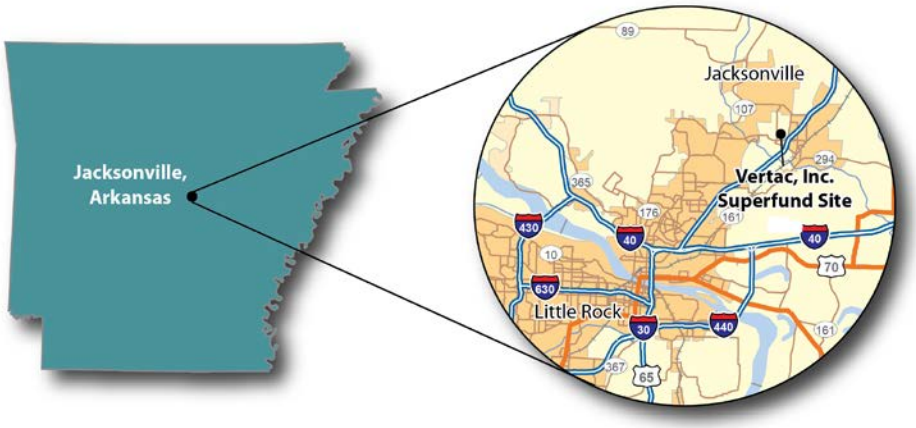

Figure 2: The site's location in Jacksonville, Pulaski County, Arkansas

Site History

The federal government built the first industrial facilities at the site during the 1930s and 1940s as part of a sprawling munitions complex. Over the next four decades, various chemical manufacturing facilities produced insecticides and herbicides on site. Vertac, Inc. operated its facilities until January 1987, when the company became insolvent and abandoned site operations. Decades of improper waste disposal and production control practices led to widespread contamination at the site.[1]

Site investigations found that exposure to drummed wastes, contaminated buildings and utilities, and affected soil, ground water, surface water and sediments posed unacceptable human health risks. Primary contaminants of concern included dioxin-related wastes, chlorinated benzenes, phenols and other herbicide production wastes.

The site consists of two parcels of land, Parcel 1 and Parcel 2. Parcel 1 is about 93 acres in size. It is located on the southern part of the site. Parcel 1 was the location of the central processing area; prior to cleanup, it had been in use nearly continuously since 1948. Parcel 1 includes a ground water treatment system and a hazardous waste landfill and sedimentation vault, which contain contaminated materials from the site's cleanup. Fences and locked gates currently restrict access to the area. Parcel 2 is about 100 acres in size and is located on the

[1] For more information on the site's history, please see the site's 2008 Five-Year Review Report, available online at: http://www.epa.gov/region6/6sf/arkansas/vertac/ar_vertac_3rd-5yr_review.pdf.

northern part of the site. Vertac, Inc. purchased Parcel 2 in 1978. Although herbicide formulation operations were never located on Parcel 2, improper storage and disposal of waste and materials contaminated the area. Today, Parcel 2 hosts the site's reuses. EPA listed the site on the Superfund program's National Priorities List in September 1983.

Property Cleanup and Transformation

Cleanup activities at the site began in June 1984. In the early stages of cleanup, the City of Jacksonville identified that reusing Parcel 2 provided a unique opportunity to expand their recycling department. In 2002, the city used pilot funding from EPA's Superfund Redevelopment Initiative to evaluate potential reuse options for the site and then reported its findings to EPA. The Agency considered the city's findings during the selection and design of the site's remedy.

The remedy chosen by EPA enabled the site's cleanup. Cleanup activities included the demolition of on-site buildings and equipment, the consolidation and disposal of waste and debris in an on-site hazardous waste landfill, and the excavation and disposal of approximately 20,000 cubic yards of dioxin-contaminated soils. Ground water cleanup and treatment actions included putting in extraction wells to control the movement of contaminated ground water and deed restrictions to prohibit drilling of water supply wells.

As part of the site's cleanup, EPA built several drum storage sheds and other structures. Following the use of these structures during cleanup, EPA determined in August 1998 that they were safe for public use and officially released them for reuse. Shortly thereafter, the City of Jacksonville acquired Parcel 2 and began using several of the structures to house the local government's recycling center and the Street Department. The structures provided the city with ready-made cover for department equipment and vehicles, protecting them from the elements and ultimately extending the usable life of the equipment. The city indicated that building new structures similar to those already on site would have been cost prohibitive. As Former Jacksonville Mayor Tommy Swaim stated, it also "seemed fitting to use a Superfund site as the city's new place to recycle."

Throughout the site's cleanup, EPA staff met regularly with state and city officials to share information and to

Figure 3: Map highlighting site reuses


Figure 4: Drive-through recycling center and storage sheds

incorporate reuse ideas into the Superfund process. EPA also held public information sessions to update the community on site activities. The EPA-led meetings served as forums for sharing community questions, concerns and priorities about the site's cleanup and reuse. The open communication of the forums and transparent information sharing built community trust and strengthened working relationships. As the site's cleanup progressed, community support for its reuse grew as well. Today, site reuses are widely valued community assets.

Site surface cleanup activities are now complete and the threats posed by dioxin-contaminated media have been successfully eliminated. Ground water extraction and treatment is ongoing, with routine site maintenance performed to ensure the continued effectiveness of the site's remedy. By integrating reuse considerations as part of the site's cleanup, EPA and the community were able to protect human health and the environment and support the site's successful redevelopment.

Local Impacts

Drive-Through Recycling Center

The city's drive-through recycling center is located in structures initially built by EPA for use as a drum storage area. The center accepts paper, cardboard, paper and plastic bags, aluminum cans, and plastic bottles for recycling. Its "Green Station" recycles used oil, gasoline, anti-freeze and compact fluorescent lights. The center also hosts electronics recycling for computers, copiers, printers, televisions, VCRs, phones, microwaves and ovens. Facilities for tire disposal and construction and demolition debris drop-off are also provided.

Figure 5: The drive-through recycling center

The new center serves 10,000 residents and is the area's only recycling center. The city moved its operations onto the site in 2001, providing much-needed new facilities in an easily accessible location. In total, 1.5 million pounds of materials are recycled each year. In addition to providing local residents and surrounding communities with the opportunity to recycle, the city saves an estimated $50,000 each year in landfill tipping fees.

"Where others saw a contaminated property, we saw an opportunity to expand our recycling department."

Former Jacksonville Mayor Tommy Swaim

The new center currently employs 20 people, providing annual employment income of approximately $760,000. Jacksonville Public Works Director Jimmy Oakley stated that "none of this (the new center) would have been possible without the ability to reuse the site. The cost for the city to purchase the 40 acres needed for the project elsewhere, and with such infrastructure already in place, would have been cost prohibitive."


Figure 6: The recycling drop-off area

Recycling Education Park

The site's reuse has transformed the area between the recycling center and Marshall Road into Jacksonville's Recycling Education Park. Trees, flowers and grass serve as the backdrop to an interactive recycling exhibit. A path leads visitors through the green space and past information displays that illustrate different methods of recycling and recyclable materials. School field trips from local and surrounding areas often tour the park.

Colorful sculptures fashioned from recycled materials decorate the park. The city formed a partnership with the Keep America Beautiful organization that included several grants to help the city purchase some of the recycled artwork. The city also installed charcoal grills and picnic tables in a new pavilion. In addition, the area includes a new disk golf recreation area.

Figure 7: The interactive recycling education park

Jacksonville City Street Department

Another structure built by EPA during the site's cleanup is now home to Jacksonville's Street Department. The facility provides office space, supply storage areas, a kitchen, a central meeting space, a sign-making room, a traffic signal testing area and a large covered parking area for department vehicles and equipment. The new facility currently employs 20 individuals, providing annual employment income of approximately $1 million.

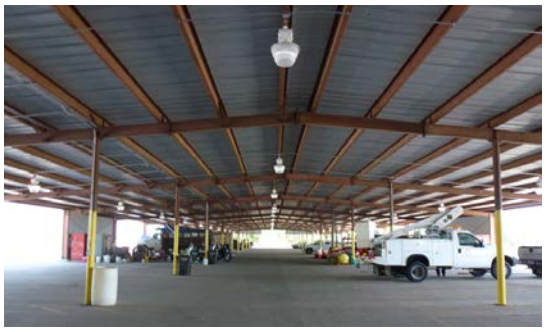

Figure 8: Street Department storage shed

Police Firing Range

Vacant land along the western edge of the site is now a 2-acre firing range for the Jacksonville Police Department. The range is divided into two sections. The marksmanship section is equipped with stationary targets. The adjacent section is equipped with moving targets and props for officers' participation in active simulations. A climate-controlled observation room where targets can be automatically controlled and reset overlooks both sections. The range offers cutting–edge training opportunities for the city's force of 79 sworn police officers, 19 civilian personnel and 10 auxiliary officers, as well as officers and agents from surrounding jurisdictions.

Figure 9: Firing range control room

"It (the range) is great. It is so far advanced from what we're used to. It's something our officers have that they can be proud of for years to come."

Captain Kenny Boyd, Police Patrol Division

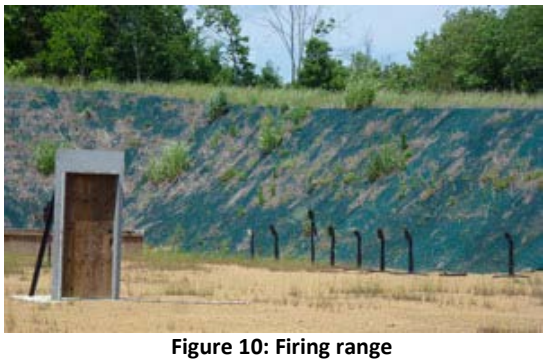

Figure 10: Firing range

Burn Tower

The city's new 3,004-square-foot burn tower stands four stories tall above the site. The city's fire and police departments as well as departments from surrounding jurisdictions use it for training and demonstration purposes. The tower helps train firefighters using simulations that closely resemble actual firefighting situations. Training simulation settings include apartment buildings, shopping centers and single-family homes. The police department also uses the tower to practice advanced SWAT team maneuvers such as rappelling. Prior to its construction, the nearest fire training facility was located over two hours away in Camden, Arkansas. The proximity of the tower saves localities both money and time. The tower's construction, in conjunction with improved water services/records and the construction of the new fire and police training facility, also helped the city move from a Level 3 ISO rating to a level 2 ISO rating. The rating change translates into a 3 to 4 percent reduction in insurance rates for property owners in the community.

The community benefits of the new burn tower are twofold. Jacksonville firefighters and police officers can now train in realistic, real-time simulations. Community members benefit from highly trained emergency responders and lower insurance rates available because of the improved ISO rating.

Figure 11: Burn tower

Figure 12: City fire department vehicle

The International Organization for Standardization (ISO) collects information on municipal fire protection efforts in communities throughout the United States. In each community, ISO analyzes relevant data using its Fire Suppression Rating Schedule (FSRS). Each fire department is assigned a Public Protection Classification (PPC) from 1 to 10. Class 1 generally represents superior property fire protection; Class 10 indicates that an area's fire-suppression program does not meet ISO's minimum criteria. The PPC program provides incentives and rewards for communities that improve their firefighting services. Having a lower ISO score directly translates into lower fire insurance premiums for communities.

Source: http://www.isomitigation.com/ppc/0000/ppc0001.html#.T6gkdtWCc7d

Public Safety Building

The soon-to-be centerpiece of the city's public safety infrastructure, and the newest addition to the site's redevelopment, is currently under construction. Through a collaborative effort between the City of Jacksonville, the Federal Emergency Management Agency (FEMA), the Jacksonville Citizen's Police Academy Alumni and a local hardware store, a large part of the site will soon be home to Jacksonville's new public safety building. The 37,000-square-foot building will house the city's police department, an emergency operations center, training rooms for police and firefighters, and a community safe room designed to shelter residents during severe weather. The project broke ground on October 4, 2011, with completion scheduled for late 2012.

Figure 13: Public safety building under construction

Funding for this project came from a variety of sources. A one-time city sales tax increase generated $4 million. FEMA awarded the city a $600,000 grant to build the community safe room. A grant awarded by the local hardware store to the Jacksonville Citizen's Police Academy Alumni funded the kitchen in the new facility.

"We're very proud of what's been accomplished at the site. It is a success story for our community. We turned lemons into lemonade."

Jacksonville Mayor Gary Fletcher

The training center will include three classrooms and provide training opportunities for the city's 64 full-time firefighters and 79 sworn police officers, as well as provide services to neighboring jurisdictions. The training center will also serve as a base of operations for several community groups, including the Citizen's Police Academy, the Junior Citizen's Police Academy and the local community Crime Watch program. The center will also host Criminal Justice Institute classes.

The emergency operations center will be equipped with the Arkansas Wireless Information Network (AWIN) digital radio system. The state-of-the-art system enables city-wide and state-wide communication.

The City of Jacksonville's new police department will replace an outdated and underequipped facility. The new department will be equipped with a climate-controlled evidence storage room, state-of-the-art interviewing rooms and a computer system that will allow the public to submit police reports.

The community safety room will have the capacity to shelter 594 local residents in the event of severe weather. The room will also double as a meeting space.

Future Site Use

A small section of the site on the east side of Marshall Road next to a residential neighborhood is currently a grassy field. The Federal Highway Administration recently awarded the city a $100,000 "Sidewalk Grant" for improvements along Marshall Road. Future plans for the area include community green space with sidewalks and picnic tables.

Conclusion

In Jacksonville, Arkansas, local entities, state agencies, community members, partnering organizations and EPA came together to share resources, collaborate and coordinate closely to clean up and redevelop the Vertac, Inc. Superfund site. The site's comprehensive cleanup minimized potential liability concerns, making the property more suitable for redevelopment at a critical time when affordable developable land was in high demand in the area.

Today, site reuses provide vital community services and have strengthened area infrastructure, providing recycling services and education opportunities for area residents, state-of-the-art training opportunities for law enforcement and firefighters, and a safe haven for community members in times of severe weather. EPA continues to coordinate with the community, ensuring the protectiveness of the site’s remedy over the long term. This cooperative effort by EPA and its federal, state and local partners has provided positive, lasting benefits to the local economy, the environment and the region.

Technical Appendix

Positive Impacts: Employment Information for On-site Jobs

A May 1, 2012 interview with Jacksonville City Public Works Director Jimmy Oakley provided information on the number of people working at the site.

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Positive Impacts: Wage and Income Information for On-site Jobs

Jacksonville City Public Works Director Jimmy Oakley provided wage and income information for on-site jobs.

Table 1: Vertac Site Businesses: NAICS Code and Title, Employees and Total Annual Wages

On-site Business	NAICS Code[a]	NAICS Title	Employees	Total Annual Wages
Jacksonville Sanitation Department (Jacksonville Recycling Center)	562212	Solid Waste Landfills	20	$761,000
Jacksonville Street Department	N/A	N/A	20	$1,000,000

[a] NAICS code provided in the Dun & Bradstreet(D&B) database unless otherwise noted.