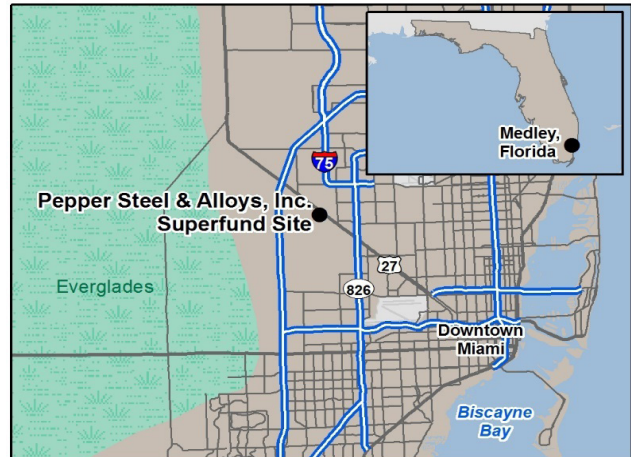


Introduction

Beginning in the 1960s, industrial businesses including manufacturers, equipment repair shops and a recycler operated on a 25-acre property northwest of Miami. The businesses made batteries, concrete products and fiberglass boats, repaired heavy equipment, and recovered metals from transformers and electrical equipment. The businesses disposed of wastes on the ground, contaminating soil and groundwater. Rusted machinery, vehicles and batteries littered the property, which became an attractive site for illegal dumping when the businesses closed in the mid-1980s. Today, the site is home to several commercial and light industrial businesses. This case study tells the remarkable story of the cleanup and redevelopment of the Pepper Steel & Alloys, Inc. Superfund site.

Following the discovery of contamination at the site, EPA, the Florida Department of Environmental Protection (FDEP), the Miami-Dade County Department of Environmental Resources Management (DERM), and other project partners worked together to clean up the site and return it to productive use. Developing protective institutional controls to support reasonably anticipated future uses, working with prospective purchasers to overcome redevelopment barriers, and sharing information about engineering constraints on site redevelopment has been vital to the site's transformation from an abandoned, junk-filled lot to a productive property.

Today, SeaVee Boats, a recreational boat manufacturer established in Miami in 1974, will soon begin construction of a boat manufacturing facility on the site's northern parcel. Another parcel has been subdivided and sold; planning for additional site development on these areas is underway. The town of Medley is also exploring ways to improve access and infrastructure at the site.



Sources: Esri, DeLorme, AND, Tele Atlas, First American, UNEP-WCMC and USGS.

The site is located in a major commercial and industrial area in Medley, Florida, northwest of Miami.

This case study explores the tools and partnerships that have led to successful cleanup and redevelopment at the Pepper Steel & Alloys, Inc. site. The following pages trace the evolution of cleanup and reuse efforts, highlighting project partnerships, and coordination of remedy and reuse considerations. The case study provides information and lessons learned for parties interested in Superfund site reuse and commercial and industrial redevelopment.



Transportation-related site uses have included truck storage and staging.



Site History, Contamination and Remediation

Located along a busy commercial and industrial corridor about 10 miles northwest of Miami, the Pepper Steel & Alloys, Inc. site has supported a variety of industrial businesses since the mid-1960s. Site operations have included battery, concrete products and fiberglass boat manufacturing, truck and heavy equipment repair and storage, sandblasting, and painting. Pepper Steel and Alloys ran a scrap metal recovery facility that included metal recovery from transformers and electrical equipment.

Over time, these businesses left the property covered with debris and waste, including rusted machinery, vehicles, aircraft, oil tanks, transformers, underground storage tanks and batteries. Pepper Steel and Alloys had dumped waste oil directly on the ground. These waste disposal practices contaminated soils and groundwater with oil and polychlorinated biphenyls (PCBs). The Biscayne Aquifer, which underlies the site, is the sole source of drinking water in the Miami metropolitan area.

In 1982, DERM inspected the site and found oil containing PCBs in six pits on site. Follow-up work by EPA identified several areas requiring further investigation. As part of an emergency response action, EPA removed PCB-contaminated soil and floating oil on the aquifer beneath the site. EPA placed the site on the Superfund program's National Priorities List (NPL) in 1984.

EPA, FDEP, DERM and the site's potentially responsible parties (PRPs) have worked together on cleanup. Free oil was collected and disposed of off site. To address the large volume of lead-, arsenic- and PCB-contaminated soil, EPA dug up the soils, mixed them with a cement-based grout to immobilize the contamination, poured the mixture into a deep excavation on site to harden into a solid structure called a monolith, and covered the area. The monolith's formulation was designed to withstand environmental stressors including submersion in groundwater and weight above.

At the time, this cleanup approach was an innovative and cost-effective remedial alternative to the traditional approach of trucking contaminated materials off site for disposal in a hazardous waste landfill. Since then, this approach has been used at many sites in Florida and nationwide.

EPA completed construction of the remedy in 1989. Institutional controls and post-cleanup monitoring are required at the site. In 1991, EPA worked with the State of Florida to institute a 20-year term judgment as a temporary institutional control. The 1991 Judgment restricted land uses and construction or development that would disturb the remedy and required that any land transfers include a covenant running with the land. The judgment expired in 2011 and EPA is working to put restrictive covenants in place on the site parcels. Ongoing monitoring of the site includes annual inspections, maintenance of the monolith cover, vegetation control, and groundwater sampling.



Old machinery and debris covered the vacant lot.

CERCLA

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is the law passed by Congress on December 11, 1980, that is commonly known as Superfund.

Timeline of Events

1982	DERM discovered contamination
1983	Removal of PCB-contaminated soil and oil Site proposed for NPL listing
1984	Site listed on the NPL
1986	Site remedy finalized
1987	Cleanup began
1989	Remedy construction finished
1991	State of Florida judgment for protection of remedy
2004	Collaborative efforts underway to support site reuse outcomes
2005	Trucking company purchased Parcel D
2006	Sale of Parcel A for pre-cast concrete plant
2007	EPA Return to Use Demonstration Project underway
2011	State of Florida judgment expired
2016	SeaVee Boats purchased Parcel A
2017	Parcel B and C boundaries re-drawn BHT purchased Parcel B

Project History

2004 – 2015

Returning Vacant Land to Productive Use

After cleanup finished in 1989, the site property was a weedy, vacant lot – the last business had closed in the mid-1980s. For the next 15 years, the property would remain vacant and overgrown, an attractive site for illegal dumping. The area was an unsightly nuisance for neighbors, a vacant area that generated zero dollars in local tax revenues. However, the site was situated in a desirable location and had some existing infrastructure, including parking areas. Returning the property to use was a community priority.

The area was also a trespassing hazard that posed a challenge to the ongoing maintenance of the remedy. For EPA, FDEP and DERM, addressing future use was a way to help ensure the long-term protectiveness of the site’s remedy. The site’s original cleanup agreement did not include provisions for funding or implementing operation and maintenance activities. In 1997, EPA partly addressed this issue, entering into a legal agreement with smaller site owner PRPs to establish an EPA special account that would pay for long-term operation and maintenance activities at the site.

In 2004, EPA began an effort to collaborate with the State of Florida, Miami-Dade County and site owners to support reuse outcomes. EPA developed language for protective institutional controls in the form of restrictive covenants for site properties that would be compatible with reasonably anticipated reuse of the site. EPA also worked with prospective site owners to overcome barriers to obtaining development funding and identify uses that would be compatible with the site remedy. For example, the presence of the site’s underground monolith constrains building loads and excavation depths.

These efforts were successful: in 2005, a trucking company purchased the site’s 5-acre southern parcel for use as a commercial truck storage area (Parcel D – see map, next page). The following year, a pre-cast concrete manufacturer purchased the northern parcel (Parcel A) for its manufacturing plant. These reuses resulted in improved stormwater controls on the parcels, an important part of remedy protection. Property owners had to comply with local stormwater management ordinances; new asphalt and curbing improvements were made in parking areas on site.

In 2007, EPA selected the site as a 2007 Return to Use Demonstration Project, highlighting ongoing efforts with site stakeholders to support future use and address reuse barriers. The return of the site to productive use, in combination with the site’s prime location, would spark interest among potential developers for further redevelopment going forward.



Vegetation growing on the vacant site raised concerns about parties’ responsibilities for maintaining the site’s remedy over the long term.

“Neighbors on property surrounding the site say this land was a dumping ground for 20 years. In that sense, redevelopment has had a great, positive impact on this community. People are glad to see the land cleaned up... Regional EPA folks were instrumental in helping me understand what needed to be done to get the site into reuse and played a key role in helping my redevelopment efforts succeed.”

– Walter Lista, former property owner



A pre-cast concrete manufacturer purchased Parcel A in 2006.

2016 – Present

Collaborating to Expand Redevelopment Opportunities

The second phase of site redevelopment started in 2016, when SeaVee Boats expressed interest in developing a boat manufacturing facility on Parcel A. SeaVee Boats makes high-end fiberglass fishing boats, working directly with customers to design and build custom-ordered boats that meet exacting specifications. The company has a year-long wait for new orders and was looking for opportunities to expand its manufacturing operation. The site’s acreage and ideal location in the heart of industrial Medley made the property an attractive location for the expansion of the company’s business.



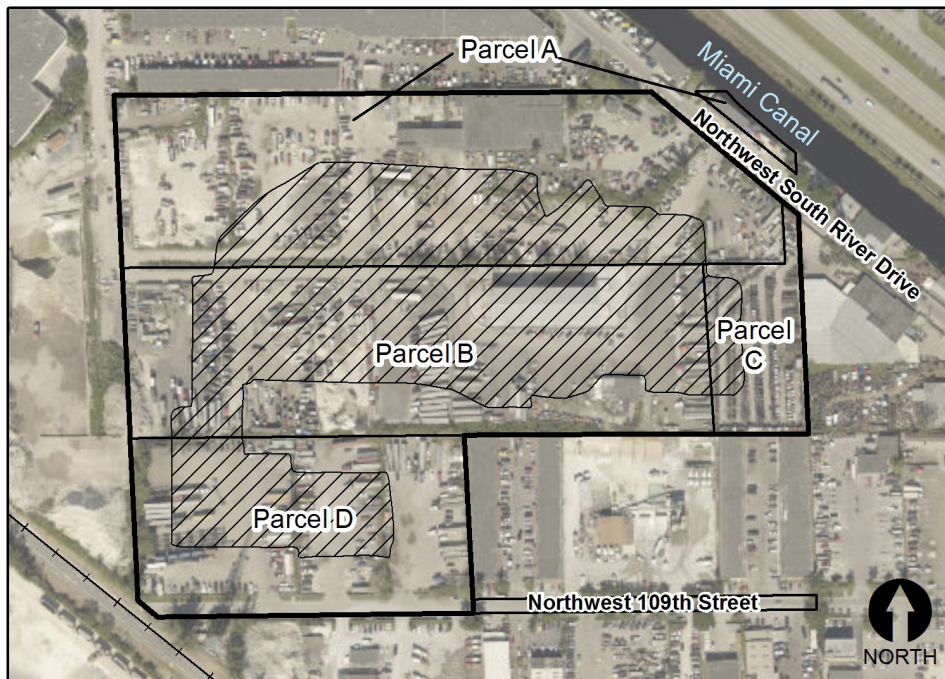
The view of transportation-related operations from the pole barn.

“This is the perfect location for our new headquarters,” said SeaVee Boats Vice-President Ralph Torres. “The acreage and ease of access to major highways were an important consideration for us as we were looking for a place to expand and consolidate our operations while staying within reach of our current employees’ residences – there are really very few parcels available of this size in the area.”

EPA, FDEP, DERM, the town of Medley and SeaVee Boats have coordinated closely to identify and address barriers to redevelopment, including permitting and engineering approvals required to facilitate redevelopment of Parcel A. Each oversight agency manages a different area required for the project to move forward.

Early on, EPA worked with SeaVee Boats on a Bona Fide Prospective Purchaser (BFPP) Agreement, under which the company’s liability concerns could be addressed. BFPP status provides liability protection for landowners who meet certain criteria and obligations, including complying with land use restrictions and cooperating with regulating authorities. “The agreement helped because SeaVee Boats had a better idea of what they could expect for site development and maintenance obligations to prevent issues,” said Shelby Johnston, EPA’s project manager at the site.

After purchasing the property in September 2016, SeaVee Boats contracted with Miami-based contractor/developer TA Builders



Map showing the site’s four parcels.

- Parcel A – former pre-cast concrete manufacturing facility; future location of the SeaVee Boats facility.
- Parcel B – location of pole barn; recently subdivided from Parcel C and sold.
- Parcel C – heavy equipment storage; recently subdivided from Parcel B.
- Parcel D – truck storage.

Legend

- Pepper Steel & Alloys, Inc. Site
- Site Parcels
- ▨ Monolith
- +— Railroad

0 100 200 400
Feet

Sources: The 2011 Five-Year Review, Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo and the GIS User Community.



Addressing Liability Concerns

In the past, Prospective Purchaser Agreements (PPAs) were regularly used by the federal government at Superfund sites to address the liability concerns of parties interested in reuse. In 2001, Congress passed the Brownfields Revitalization Act to make the acquisition and redevelopment of contaminated properties like Superfund sites easier. Under the Act, a prospective purchaser need no longer negotiate a PPA with EPA and the federal government. In lieu of a signed agreement, the purchaser could meet requirements to qualify as a bona fide prospective purchaser (BFPP).

Based on several steps, including documenting previous site owners, property uses and existing environmental conditions, the Brownfields Revitalization Act provides designated BFPPs with limited liability protections. The Act also exempts contiguous property owners from Superfund liability and clarifies appropriate inquiry for innocent landowners. For more information about these requirements, please see: <https://www.epa.gov/enforcement/bona-fide-prospective-purchasers>.

and environmental consulting firm Hydrologic Associates and began working on development plans. EPA reviewed the monolith's engineering design, which included case studies describing the types of development that the land could support. The contractors for SeaVee Boats proposed making changes to the monolith to accommodate the construction of the new facility. They determined that while the monolith's footprint must remain the same, part of it could be cut, dug up and removed to accommodate building construction in one area, with the material added to another part of the monolith and re-encapsulated. EPA and FDEP reviewed the proposal and gave guidance on how to best achieve the desired outcome while still protecting the remedy in place.

EPA and FDEP have also coordinated to identify applicable regulations for the work: Occupational Safety and Health Administration (OSHA) requirements must be met for workers doing the monolith adjustments, and Resource Conservation and Recovery Act regulations apply to bulk disposal of PCB-containing wastes. FDEP led an engineering review of the plans to assess how the weight of the SeaVee Boats facility would

“Improving access to the parcels as well as water and sewer service at the site would encourage industrial and commercial redevelopment of the properties.”

– Manny Perez, Project Engineer with Snubbs Consulting (local government contractor)

be distributed over the monolith and to ensure that excavation work would not damage the structure. “We need to ensure that construction of the building’s foundation will not compromise the monolith’s integrity,” said FDEP Environmental Specialist John Sykes. DERM also conducted a review of the company’s construction plans and the town of Medley approved construction permits for the facility. For the town of Medley, redevelopment at the site addresses the locality’s long-held goal of returning the properties to the town’s tax rolls. The locality is working with site owners and EPA on plans for further site infrastructure improvements, including a new road and storm sewer enhancements.

FDEP and EPA are collaborating on developing institutional controls required at the site – restrictive covenants will be placed on the site parcels. The covenants will include operation and maintenance requirements for each property owner to ensure the long-term protectiveness of the remedy. This process has been a challenge, because the properties have changed

“The monolith is protected by a layer of asphalt and crushed gravel now. Adding a building on top, if done correctly, will provide additional protection of the remedy.”

– John Sykes, FDEP

Infrastructure Improvements

The site properties are one of the last remaining underdeveloped properties along this busy industrial corridor. Redevelopment of the site aligns well with the town of Medley’s mission to be “the perfect place for industrial development.” The community is home to major manufacturing and warehousing operations.

The local government has proposed improving accessibility at the site with the construction of a road along the southern border of Parcel A; SeaVee Boats has agreed to contribute the land. The locality is also in talks with site property owners regarding an easement for utility infrastructure. While the monolith is compatible with construction of a road, utilities require deeper trenching and therefore would require additional considerations to protect the monolith.

The town of Medley is also considering putting a special assessment district in place to finance the construction of these improvements. Special assessment districts are areas where property owners agree to an additional levy by the municipality to finance public improvements. Localities frequently use this mechanism to fund capital improvements, security, street lights and other services.

hands so frequently. The restrictive covenant for Parcel A was finalized in February 2018 and SeaVee Boats moved forward with construction of its facility later that month.

Looking Forward

Today, redevelopment is moving quickly at the site, with SeaVee Boat's construction getting started, new owners making plans for other site properties, and the town of Medley working on infrastructure and utility plans for the area. As these plans take shape, EPA, FDEP and DERM continue to work with property owners to put an effective institutional control and operation and maintenance framework in place to ensure the remedy's long-term protectiveness.

With construction permits in place, SeaVee Boats is working on construction of the 180,000-square-foot facility. The facility will enable the company to increase production of its highly sought-after boats from 150 to 250 a year. The project is being financed in part with the proceeds of \$9.7 in Tax Exempt Industrial Revenue Bond.

Improvements are also underway on Parcel B to the south. Following a boundary redrawing, BHT purchased Parcel B in late 2017 and submitted site plans to the town of Medley for use of the property as a truck storage area.

Existing uses continue elsewhere on site. A truck parts retailer, 4 Trucks Enterprises, stores truck parts on Parcel C, which is adjacent to the company's facility directly east of the site. On parcel D, truck storage operations are still underway.

Once institutional controls are in place for all parcels, the site will be eligible for EPA's Sitewide Ready for Anticipated Use (SWRAU) status and can be deleted from the NPL. "Putting the institutional controls in place is the last cornerstone to move toward closing out work for the site," said Shelby Johnston. Going forward, collaboration among site owners and federal, state and local partners will ensure that continued redevelopment of the Pepper Steel properties ensures that this land will remain a productive contributor to the local tax base.

Industrial Revenue Bond

Local governments issue this type of bond on behalf of a for-profit business to finance industrial development such as construction of a factory or acquisition of equipment. Until the bond is repaid in full by the business, the municipality holds title to the collateral. This tool can provide tax benefits that reduce the interest rate paid by the business and does not affect the municipality's tax rating.

Lessons Learned

Stakeholders involved in the cleanup and redevelopment process emphasized several key factors that have been vital to the project's success:

- The Pepper Steel property is one of few remaining underdeveloped industrial properties in the Medley area, which is in high demand due to its location near transportation networks and proximity to major markets.
- EPA, FDEP and DERM have worked closely with property owners to evaluate site plans, assess their compatibility with the remedy, and identify applicable regulations to facilitate redevelopment.
- SeaVee Boats has worked proactively with EPA, FDEP and DERM to figure out how the site could support its development plans.
- The Bona Fide Prospective Purchaser process addressed SeaVee Boats' liability concerns, enabling the company to move forward with its acquisition of Parcel A.
- EPA has been a long-term site steward, making sure that appropriate parties remain engaged as owners and site uses change.

Sitewide Ready for Anticipated (SWRAU) Performance Measure

EPA developed the SWRAU performance measures to meet its responsibility to report long-term, outcome-based accomplishments under the Government Performance and Results Act. The measure reflects the importance of considering future land use as part of the cleanup process. To be eligible for SWRAU status, a site must meet the following criteria:

- All aspects of the cleanup are in place and have been achieved for any media that may affect current and reasonably anticipated future land uses, so that there are no unacceptable risks.
- All land use restrictions or other controls required as part of the cleanup are in place.
- The site is a final or deleted NPL site, or Superfund Alternative Approach (SAA) site, and has reached the construction completion milestone.

Bigger Picture

While these factors created a climate for the successful reuse of the Pepper Steel & Alloys, Inc. site, a range of broader lessons learned can also help guide similar projects at contaminated lands across the country:

EPA works closely with communities, site owners and other stakeholders to support reuse outcomes that are compatible with site cleanups.

The Agency places a high priority on supporting the return of contaminated sites to productive and beneficial uses. In Medley, EPA has worked closely with state agencies and property owners to ensure that the site's reasonably anticipated future use – industrial use – is compatible with the site's remedy. For example, collaboration and creative thinking have made it possible for Seavee Boats to build its facility near the site's monolith. EPA will continue to work with prospective developers to ensure that future site uses are compatible with the site's remedy.

While EPA provides tools and resources to support Superfund reuse, communities and public- and private-sector organizations make it happen.

EPA's mission is to protect human health and the environment. EPA relies on engaged community stakeholders to bring their future land use goals and priorities to the table so that this information can be incorporated as part of the long-term stewardship of site remedies as well as cleanup planning and implementation. SeaVee Boats saw the unique opportunities presented by the size and location of Parcel A, and has worked creatively with local, state and federal agencies to take the steps necessary to plan development that would meet its goals for growth while protecting the remedy at the site.

Local governments play a key leadership role in cleanup and redevelopment projects.

As the organizations responsible for their communities' general welfare, local governments are particularly well positioned to champion redevelopment projects, bring together diverse stakeholders to discuss site cleanup and reuse opportunities, and use planning tools and incentives to foster positive site outcomes. Miami-Dade County's industrial bond agreement will help SeaVee Boats secure necessary funding for the construction of its facility. The town of Medley's efforts to coordinate infrastructure and utility development plans with property owners are helping to facilitate industrial and commercial development in the area, in line with community priorities and local government plans.

“Collaborating with FDEP and DERM on the permitting process has yielded huge benefits – the product is much better than any of us could have done on our own.”

– Shelby Johnston, EPA

EPA and Reuse: Lessons Learned

Since the inception of the Superfund program, EPA has been building on its expertise in conducting site characterization and remediation to ensure that contamination is not a barrier to the reuse of property. Today, consideration of future use is an integral part of EPA's cleanup programs from initial site investigations and remedy selection through to the design, implementation, and operation and maintenance of a site's remedy.

At older sites, EPA did not focus on reuse considerations during the cleanup design process. At the Pepper Steel & Alloys, Inc. site, the monolith was a cost-effective way to address large amounts of PCB-contaminated soils. However, it also constrains building location, load and excavation depth. EPA, FDEP, DERM, the town of Medley and site owners continue to coordinate to find creative ways to adapt development and infrastructure plans to ensure their compatibility with the site's remedy.

EPA also works with site stakeholders to consider how future land use considerations can inform the implementation and long-term stewardship of site remedies as well as cleanup planning. At some sites, for example, reuse considerations can inform the future location of groundwater monitoring wells and other operation and maintenance equipment that might inadvertently hinder redevelopment efforts. At other sites, detailed site reuse plans have provided additional benefits that save time and reduce redevelopment costs. For example, future infrastructure corridors or building footers can be installed in coordination with site cleanup activities.

State agencies can play a vital role across remediation, restoration and redevelopment activities at contaminated lands and provide critical resources and expertise.

FDEP has played a key role in oversight of the cleanup and redevelopment process, coordinating with EPA to ensure that redevelopment efforts meet all applicable regulations and that construction plans protect the integrity of the monolith.

Building on past experience yields new opportunities and insights.

Parties at the Pepper Steel & Alloys, Inc. site were charting new territory in addressing site reuse challenges. Today, thanks to the Bona Fide Prospective Purchaser process, environmental insurance and EPA tools such as Ready for Reuse (RfR) Determinations, well-established resources are available. Prospective purchasers can contact EPA site teams to learn more or see the Resources section on page nine for more information.



Truck storage and operations on Parcel D.

Conclusion

Going forward, ongoing redevelopment of the Pepper Steel & Alloys, Inc. site will continue to contribute to industrial growth in the town of Medley. The completed boat manufacturing facility will allow SeaVee to expand its operations and meet the high demand for its products. A new road providing increased access to the site properties and improved utility infrastructure could increase opportunities for additional development. Future development of the remaining site properties will complete the transformation of this formerly vacant, contaminated site to a busy industrial property.

The cleanup and redevelopment of this formerly blighted dumping ground illustrates how remedy and reuse can come together to provide significant benefits – the protection of human health and the environment as well as economic revitalization. Thanks to the collaboration among local, state and federal partners, the Pepper Steel & Alloys, Inc. site is now a valuable resource and a leading example of Superfund site reuse.

FROM ABANDONED LAND TO NEW LIFE AS A COMMERCIAL AND LIGHT INDUSTRIAL HUB

THE PEPPER STEEL & ALLOYS, INC. SITE IN MEDLEY, FLORIDA

Sources and Resources

Sources

Images and maps for this case study are provided courtesy of EPA Region 4.

Resources

EPA site profile page:

<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0400599&msspp=med>

EPA Superfund Redevelopment Initiative:

<https://www.epa.gov/superfund-redevelopment-initiative>

Florida Department of Environmental Protection:

<https://floridadep.gov>

Miami-Dade County Environmental Resources

Management:

<http://www.miamidade.gov/environment>

Town of Medley:

<http://www.townofmedley.com>

Bona fide Prospective Purchaser Information:

<https://www.epa.gov/enforcement/bona-fide-prospective-purchasers>

SeaVee Boats:

<https://www.seaveeboats.com/>



Region 4
61 Forsyth Street SW
Atlanta, GA 30303

September 2018



In May 2017, EPA established a task force to restore the Superfund program to its rightful place at the center of the Agency's core mission to protect health and the environment.

epa.gov/superfund/superfund-task-force