

US EPA ARCHIVE DOCUMENT

Success Story

Kerr-McGee Superfund Sites



Reed Keppler Park



Sewage Treatment Plant



West Branch DuPage River

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Executive Summary

The Kerr-McGee Superfund sites include four National Priority List (NPL) sites in the West Chicago area that were contaminated with radioactive thorium wastes. The radioactive waste originated from a nearby facility known as the Rare Earths Facility (REF). The REF operated from 1932 – 1973 and produced non-radioactive and radioactive elements for use in gas lantern mantles and in federal atomic energy research and development programs. This report focuses on two of the Kerr-McGee sites: the Reed Keppler Park and the Sewage Treatment Plant Superfund sites.

The cleanup of Reed Keppler Park and the Sewage Treatment Plant were funded by Kerr-McGee, the potentially responsible party, and both sites have been remediated for unrestricted use. Information presented in this report illustrates lessons learned by local stakeholders involved in the cleanup of this West Chicago community. Stakeholders engaged in the Superfund cleanup process helped align cleanup with future use goals to ensure the sites were returned to a productive and beneficial use for the community. In addition, local stakeholder input on the design of the remediation strategy, restoration plans and monitoring technologies helped to reduce remediation costs and accelerate the cleanup.

The remediation, restoration and reuse of Reed Keppler Park and the Sewage Treatment Plant Superfund sites has resulted in valuable recreational opportunities and restored ecosystem services in the county. The cleanup activities also enabled expansion of the Sewage Treatment Plant. This success story report provides an overview of the cleanup and reuse process at each site, and outlines components of success and the benefits of reuse for the West Chicago community.



Introduction

The City of West Chicago, located approximately 30 miles west of downtown Chicago, was established around the first railroad junction in Illinois. In 1888, a railroad company laid tracks through the town and gave away free factory sites along its right-of-way. The Lindsay Light and Chemical Company established a facility in the early 1930s to manufacture incandescent gaslight mantles for home and street lighting. The facility produced thorium nitrate, a radioactive chemical used to manufacture the gaslight mantles. The facility, known as the Rare Earths Facility (REF), continued to produce both nonradioactive elements, known as rare earths, and radioactive elements, such as thorium, radium and uranium, for private entities and the United States government's federal atomic energy programs until 1973.

Kerr-McGee (now known as Tronox) purchased the REF in 1967 and maintained operations at the facility until closing it in 1973. The REF extracted the radioactive elements from monazite sands, bastnasite (rare earth ore) and other ores using an acid leaching process, which generated radioactive mill tailings as a byproduct. The sand-like mill tailings were stored in large piles at the REF and were made available as free fill material from the 1930s through the 1950s. The mill tailings were used throughout West Chicago for landscaping projects and to fill low-lying areas before the material was determined to be hazardous.

Four Kerr-McGee Superfund sites were placed on the National Priorities List (NPL) in 1990 and 1991: the Reed-Kepler Park, the Sewage Treatment Plant, the Residential Areas site, and the Kress Creek/West Branch DuPage River site. While the contamination at all sites originated at the REF, each site is addressed by a separate remedial process.



U.S. EPA Project Manager, Becky Frey, inspects the restored habitat on the banks of Kress Creek.

This success story explores the partnerships and key factors that led to the successful cleanup and reuse of the Reed Kepper Park Superfund site and the Sewage Treatment Plant Superfund site. The report outlines lessons learned as identified by local, state and federal representatives involved in the project. The intention is to provide relevant information to parties with a general interest in Superfund site reuse, parkland revitalization and ecological restoration.

Reed Keppler Park

The 90-acre Reed Keppler Park Superfund site is located in a largely residential area of West Chicago. The property was used as a sand and gravel quarry in the late 1800s. The City of West Chicago purchased the land from the local rail road company in the early 1930s and used it as a small municipal landfill from 1939 to 1974. After closing the landfill, the City leased the property to the West Chicago Park District for development of a community park. Radioactive mill tailings, derived from production processes at the REF, were used as cover material for the landfill, as well as fill material in the surrounding park area.

Remedial History

In spring 1993, EPA began a remedial investigation (RI) to determine the nature and extent of contamination at the site. Based on the investigation results, EPA issued an Action Memorandum to expedite cleanup of the site. The Action Memorandum specified excavation and offsite disposal of the radioactively-contaminated wastes to meet residential cleanup standards.



Reed Keppler Park

Reed Keppler Park Remedial Timeline

1990	Reed Keppler Park added to the National Priorities List (NPL)
Spring 1993	EPA began a Remedial Investigation (RI) to determine the nature and extent of contamination at the site
March 1996	EPA issues an Action Memorandum selecting excavation and offsite disposal of contaminated wastes as the removal action
Sept 1996	EPA issues a Unilateral Administrative Order requiring Kerr-McGee to conduct a time-critical removal action
1997 - 2000	Kerr-McGee completed excavation and restoration work
March 2002	EPA finalized the RI report
Sept 2002	EPA issued a Record of Decision (ROD) calling for no further action, with ground water monitoring until the drinking water standard for uranium was attained
March 2005	Federal Consent Decree for ground water monitoring finalized with Kerr-McGee; subsequent sampling results meet ground water standards
Feb 2010	Reed Keppler Park deleted from the NPL

Kerr-McGee began excavation work at the site in April 1997 and completed the excavation work in late 1999, removing 114,652 cubic yards of radioactively-contaminated material.

The initial cleanup requirements involved continual testing of soil below the water table creating cleanup delays and uncertainty during the process. This challenge sparked a technical innovation developed during discussions with the City of West Chicago referred to as the cutline approach. This cutline approach consisted of boring measurements on a 15-meter grid to identify the vertical and horizontal extent of the contamination. The method gave EPA and Kerr-McGee the specific location and amount of excavation needed, which enabled them to more accurately estimate cleanup costs and a timeline.

Kerr-McGee and EPA agreed upon a plan to complete the cleanup using the cutline approach. EPA granted Kerr-McGee additional time in the remediation process to accommodate community discussions and ensure local stakeholder support for the plan.

Restoration work, which included backfilling, grading, re-seeding, replacement of groundwater monitoring wells and road work, was completed in November 2000. EPA finalized the Remedial Investigation / Feasibility Study (RI/FS) report in March 2002 and issued a Record of Decision (ROD) in September 2002. The ROD called for no further action at the site, with ground water monitoring to continue until sufficient data was collected to ensure that the drinking water standard for uranium was attained.

The ground water monitoring was conducted by Kerr-McGee in accordance with a federal Consent Decree finalized in March 2005. The results of the first four ground water sampling events were below the total uranium cleanup standards. Based upon these results, EPA declared the remedial action at Reed-Kepler Park complete.

Coordinating Cleanup and Redevelopment: The Prairie Oaks Family Aquatic Center

Development of the Prairie Oaks Aquatic Center required careful coordination between the City of West Chicago, DuPage County, the West Chicago Park District and EPA, along with input from the Nuclear Regulatory Commission (NRC) and State environmental agencies. The location of the Park's original pool facility, and the proposed location for a new family aquatic center, was 700 feet east of the old landfill. Planning for the new facility began before the Remedial Investigation (RI) determining the full extent of radioactive contamination was complete. However, EPA agreed to allow the project to proceed if the Park District performed a more focused RI in the proposed development area.

The Park District's RI identified several small areas of contamination. Fortunately, most of the contamination was located in areas that could be avoided by modifying the aquatic center's design. EPA later addressed these areas during the remediation of the larger site area. Once EPA was certain the development footprint was outside areas of possible contamination, EPA allowed the Park District to commence construction of the facility with the stipulation that baseline monitoring of background radiation occur throughout construction. Construction began in 1993, concurrent with EPA's larger Remedial Investigation, and the Prairie Oaks Family Aquatic Center opened June 16, 1995.

Site Status

Reed Keppler Park was deleted from the NPL in February 2010. The site has been cleaned to accommodate unrestricted use of the property.

Current Use

Reed-Keppler Park now features:

- 7 baseball/softball fields,
- 1 T-ball field, 2 soccer fields,
- 1 lacrosse field, a football field,
- A skateboard park,
- 2 playgrounds,
- a concession stand and pavilions, and
- ample parking.

The Park is home of the West Chicago Park District Wildcat Youth Football League. In addition, Reed Keppler Park hosts a 2-acre fenced dog park and the 25-acre Dyer Nature Sanctuary and trail. The new 5-acre aquatic center

is one of the central amenities of the remediated Reed-Keppler Park. It includes a large multi-use pool area, water slides, sand volleyball courts, a concession and changing facilities.

Overcoming Challenges

While developing the new aquatic center and remediating the Reed-Keppler Park site, the West Chicago Park District and EPA had to respond to public concerns over the safety of the Park facilities. Danger signs posted around the fenced portion of the site generated stigma and caused park use to drop significantly.

In order to address these concerns, the Park District published informational articles in the local newspaper. EPA developed a series of fact sheets describing the remedial activities at Reed Keppler Park to post at the park and aquatic center.



The Illinois Prairie Path, a 61-mile multi-use nature trail designed for bicycling and other non-motorized public use, built on the former right-of-way for the old Chicago Aurora and Elgin electric railroad, runs behind the sports fields at



Prairie Oaks Family Aquatic Center (Source: City of West Chicago)



One of the many baseball fields at Reed Keppler Park (Source: City of West Chicago)



Skateboard park at Reed Keppler Park (Source: City of West Chicago)

Sewage Treatment Plant

The Sewage Treatment Plant site is located in the southeastern portion of West Chicago and is comprised of the West Chicago Sewage Treatment Plant and approximately 1.2 miles of river sediments, banks and floodplain soils. The Sewage Treatment Plant site is divided into two operable units (OU) referred to as the Upland OU and the River OU.

The Upland OU consists of the Sewage Treatment Plant property, which is owned and operated by the City of West Chicago. The Sewage Treatment Plant was built in 1919 and covers approximately 25 acres.

The River OU includes approximately 1.2 miles of the West Branch of the DuPage River from the northern boundary of the Sewage Treatment Plant property to the confluence of the river and Kress Creek.¹ The River OU is divided into two reaches: 5A, the upstream reach, and 5B, the downstream reach.

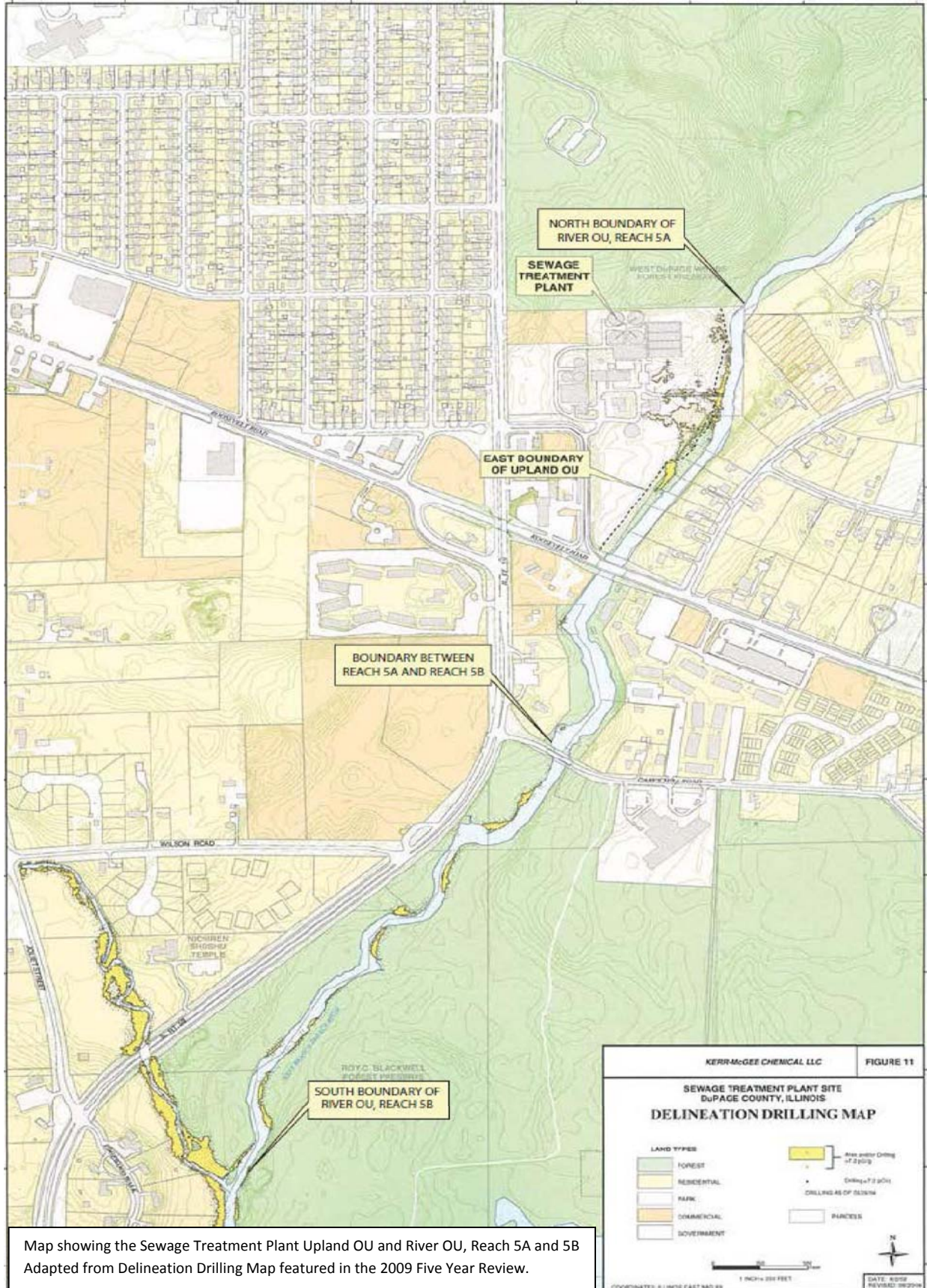
Remedial History

The Sewage Treatment Plant became contaminated when radioactive thorium residuals from the Kerr-McGee facility were hauled to the treatment facility and used as fill material. Some of the contamination entered the adjacent West Branch DuPage River due to erosion during rainstorms.

Sewage Treatment Plant Remedial Timeline

1986	Kerr-McGee conducted a voluntary cleanup action at the Upland OU
1990	Sewage Treatment Plant listed on the National Priorities List (NPL)
1993	EPA began Remedial Investigation (RI) and Feasibility Study (FS)
1997	Kerr-McGee conducted additional characterization work
Fall 2003	EPA and Kerr-McGee signed Administrative Order of Consent (AOC) for Kerr-McGee to conduct a time-critical removal action at the Upland OU
Fall 2003	EPA and Kerr-McGee signed AOC for Kerr-McGee to complete the RI/FS
Fall 2004	EPA signed Record of Decision (ROD) for the River OU
Spring 2005	Kerr-McGee entered into two separate consent decrees, one with the federal government and State of Illinois and one with the local communities
Fall 2006	Restoration work on Upland OU and River OU completed
Fall 2006	EPA signed preliminary close-out report

¹ Kress Creek and the West Branch of the DuPage River downstream of the confluence are part of a separate Superfund site addressed under a separate ROD. The Kress Creek Site includes seven miles of creek and river sediment, banks and floodplain soils contaminated by eroded soil from the REF that flushed through a nearby storm sewer during rainstorms.



During 1986 and 1987, Kerr-McGee conducted a voluntary cleanup action to allow the City to expand the Sewage Treatment Plant. Further radioactivity surveys performed by the Nuclear Regulatory Commission (NRC) and EPA found additional contamination. As a result, EPA placed the Sewage Treatment Plant on the NPL in 1990 and began a RI in 1993.

In 1998, EPA agreed to a more efficient and cost-effective cleanup strategy based on the cut-line approach developed for Reed Kepler Park. Approximately 1900 borings were installed to create cut lines every 25 feet to identify the extent of contamination across the site. This allowed Kerr-McGee to define the limits of construction and generate a fixed estimate of the cleanup costs.

Kerr-McGee officially took the lead in the RI/FS with EPA oversight in a written agreement reached in late 2003. The RI/FS reports prepared by Kerr-McGee include data collected by both EPA and Kerr-McGee. As a result of the extensive studies and community discussions, EPA approved a cleanup proposal that had support from both Kerr-McGee and the local stakeholders.

In fall 2003, Kerr-McGee and EPA signed an Administrative Order on Consent for Kerr-McGee to conduct a time-critical removal action at the Upland OU. EPA signed a ROD for the Sewage Treatment Plant in September 2004. The ROD selected excavation and off-site disposal as the cleanup method for targeted sediments and soils. The cleanup required remediation to meet residential cleanup standards as well as habitat restoration to mitigate for impacts associated with the cleanup. The ROD also determined that no further action was necessary at the Upland OU after completion of the time-critical removal action at that portion of the site.



Ole Oldenburg and John Wills review the newly constructed floodplain which has been lowered in elevation with a crenulated cobble bank providing bank stability and habitat.
(Source: Forest Preserve District)



This photo shows the same river section four years later demonstrating restored habitat. Water Willow is now well established providing very stable bank and floodplain conditions and excellent fish fry protection habitat.

In spring 2005, Kerr-McGee entered into two separate consent decrees, one with the federal government and State of Illinois and one with the local communities. Under the federal Consent Decree, Kerr-McGee agreed to design and carry out cleanup of the Sewage Treatment Plant River OU, under the oversight of EPA and the local governments. The cleanup design plan for each segment of the creek and

river contained a detailed restoration plan, called the *Conceptual Mitigation and Restoration Design Plan*. The cleanup of the upstream portion of the river (Reach 5A) was completed during the summer of 2005. The cleanup of the downstream portion of the river (Reach 5B) began in August 2006 and was completed in the fall of 2006. Additional restoration plantings in Reach 5B were completed in spring 2008.

Site Status

EPA signed a preliminary close-out report for the site in September 2006. Maintenance and monitoring of the restored areas will continue until the restoration performance criteria set forth in the restoration plan have been achieved. The Sewage Treatment Plant has been remediated for unrestricted use. EPA anticipates delisting the site from the NPL once the maintenance and monitoring period is complete.

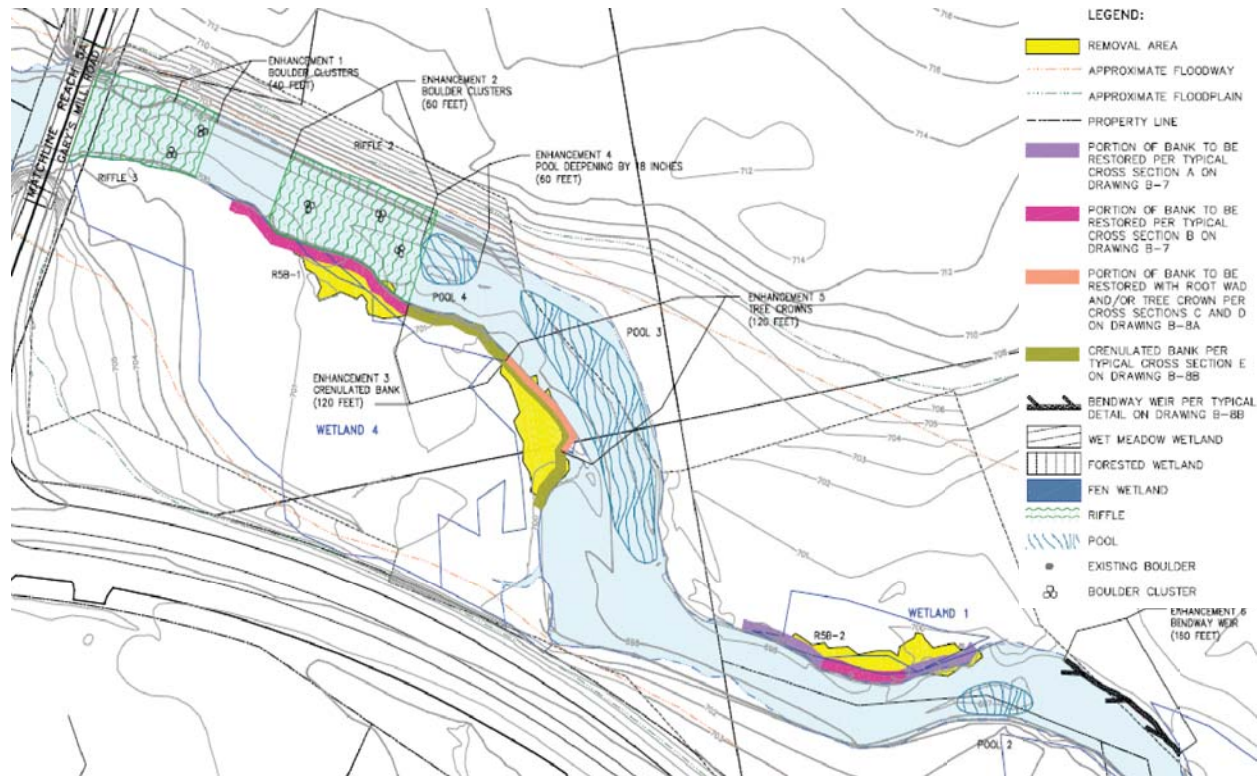
Current Land Use

The Sewage Treatment Plant property is located in an area of low-density development surrounded by residential areas and the West DuPage Woods Forest Preserve. Land use along the river portion of the site is mostly recreational, but there are a few homes and a church on the eastern side of the river south of the Sewage Treatment Plant. While land use at the Sewage Treatment Plant site has remained the same, the ecological health and recreational use of the river has greatly increased as a result of cleanup and restoration activities.

River Restoration Plan for the Sewage Treatment Plant Site

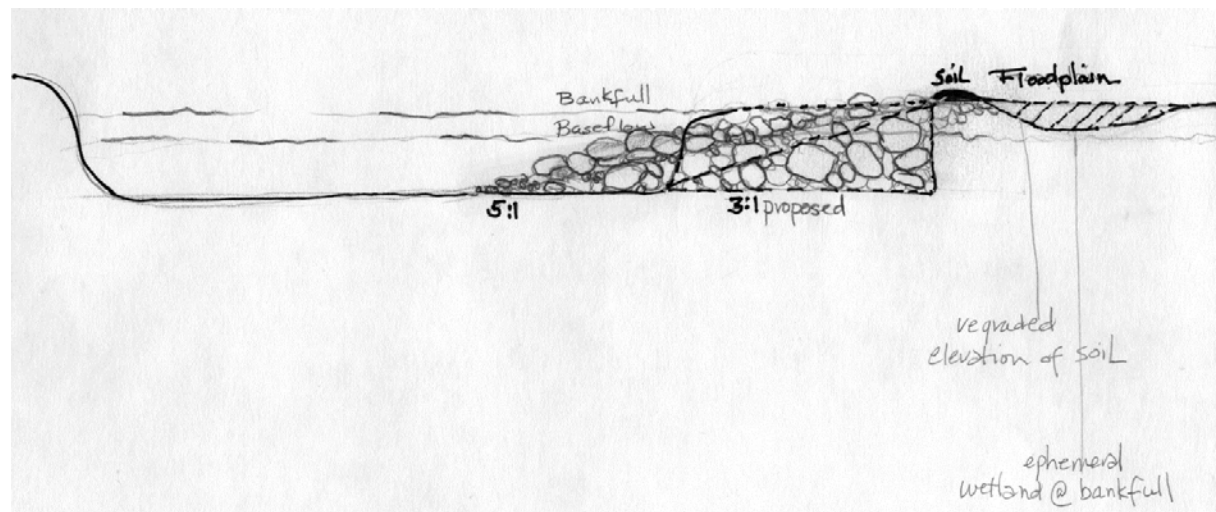
Under the Consent Decrees signed in 2005, Kerr McGee agreed to develop a restoration and mitigation plan for the different types of properties and areas located along the River OU. The *Conceptual Mitigation and Restoration Design Plan* was created with significant input from representatives of the City of West Chicago, DuPage County, the Forest Preserve, EPA, and federal and state natural resource trustees. The conceptual plan was designed to restore habitats impacted by cleanup activities to similar or better character and function. The plan included specific mitigation and restoration goals for the following areas and property types: streambank and riparian areas, commercial and residential properties, wetlands, Forest Preserve property, and in-stream aquatic habitat. It also included monitoring and maintenance requirements for restored areas based on specific performance criteria.

The Forest Preserve District of DuPage County (Forest Preserve) owns the vast majority of land along the River OU of the Sewage Treatment Plant site. In the 1980s, the Forest Preserve launched an effort to restore the river, which was suffering from the effects of development in the watershed. The Forest Preserve was initially concerned the cleanup of the Sewage Treatment Plant site would reverse or delay their efforts and further harm the river. However, as they became engaged in the Superfund process, they realized they could coordinate restoration efforts with the cleanup process.



A section of the Final Design/Remedial Action Work Plan for Reach 5B of the Sewage Treatment Plant River OU. (Source: Blasland, Bouck & Lee, Inc., April 2006)

The Forest Preserve played a crucial role in helping to shape the conceptual plan and restoration framework. By sharing technical expertise and guidance related to achieving restoration goals, they turned the Superfund cleanup into a positive, value-added project for the Forest Preserve. John Oldenburg, the Director of Natural Resources for the Forest Preserve, recognized the restoration opportunity presented by the mitigation activities required by the Superfund cleanup process.



Ecological concept illustrated by Jessi DeMartini of the Forest Preserve District depicting the crenulated cobble loading of the bank forward into the river.

Maximizing Restoration Funds

One innovative funding solution led by the Forest Preserve involved the development of a “Tree Fund.” The Tree Fund required any contractor cutting down trees in the Forest Preserve to assess the value of the trees and reimburse the Forest Preserve for their value. They determined every acre of forest disturbed to be worth approximately \$43,000, which could be used to finance further restoration work and incorporate habitat features that would not have been possible otherwise.

The Forest Preserve also recognized the opportunity to coordinate cleanup and restoration activities with Kerr-McGee and offered to establish equipment staging areas and access roads for the remedial work. This allowed the Forest Preserve to select staging locations and access routes in areas of the Preserve where tree health was already in decline.

Leveraging Resources

During the cleanup process, the National Oceanic and Atmospheric Administration (NOAA) awarded a \$10 million grant to DuPage County for habitat restoration. The overall objective of the grant was to implement watershed enhancement projects to restore the ecological health and biological diversity to the West Branch of the DuPage River and watershed. DuPage County, in cooperation with the Forest Preserve, used the funding to develop a restoration vision that extended beyond remediation of the Sewage Treatment Plant to include restoration of the entire river valley.

The Forest Preserve was able to further stretch restoration funds by finding creative ways to use local materials for the restoration work. Wetland soils from one stretch of the river were used to repair the stream banks in other sections of the river. Excavated areas were converted to deep water habitat pools and the hydric soils used to reestablish wetlands in the floodplain. In one instance, soils excavated to create a pond in the Preserve were used by

Kerr-McGee for river restoration. Searching for creative solutions to meet the needs of all parties required time, trust and a great deal of brainstorming. According to Jessie DeMartini, ecologist and stream restoration specialist for the Forest Preserve, “Many solutions were reached by hashing out ideas on the back of a napkin.”

Local, state and federal parties worked together to keep mitigation and restoration resources within the project area. The Forest Preserve volunteered to take on all obligatory wetland mitigation on Forest Preserve property, where they felt they could achieve the highest standard of restoration.



Restoration activities for the River OU included creating shoreline habitats along the streambanks. (Source: Wills Burke Kelsey Associates)

Components of Success

A combination of significant factors contributed to the successful cleanup and redevelopment of the Reed Keppler Park and Sewage Treatment Plant Superfund sites.

Community Involvement

Citizen participation played a critical role in the cleanup and restoration of the two Kerr-McGee sites. The Thorium Action Group (TAG) formed in the 1980s as a group of private citizens concerned about the presence of radiation in the community. The group taught themselves about radiation contamination in general and the particulars regarding the Kerr-McGee sites in West Chicago. Once EPA became involved, EPA collaborated with representatives of the local community and TAG regarding the best methods for sharing information with the public at various stages of the cleanup project.

Intergovernmental Agency Work Group

The Intergovernmental Agency Work Group (Work Group) started as an informal coalition of stakeholders in the early 1990s, but the group became more formalized as the value of their collaboration was realized. The entities that make up the Work Group include EPA, Illinois EPA, the Attorney General's office, Illinois Emergency Management Agency (IEMA), Kerr-McGee, and the five jurisdictions that make up the local community – the City of West Chicago, DuPage County, Park District of West Chicago, Forest Preserve of DuPage County, and the City of Warrenville. The Work Group meetings were originally held in downtown Chicago; however the agencies offered to move the meetings to West Chicago to provide the local communities better access to the discussions.

The Intergovernmental Agency Work Group became a primary vehicle for information exchange and transparency between EPA, Kerr-McGee and local stakeholders, including the TAG. The collaborative effort helped accelerate investigation and cleanup efforts by coordinating information and resources.

The local communities contracted several resource professionals to guide them through the cleanup process. While the City of West Chicago and DuPage County paid for the majority of these services, all five jurisdictions signed an intergovernmental agreement to contribute support for the technical assistance.



The ecological health and recreational use of the river has greatly increased as a result of cleanup and restoration activities.

Reuse Planning

Consideration of future uses has factored into the cleanup of the West Chicago Superfund sites since the beginning of the remediation process. For Reed Keppler Park, EPA coordinated with the Park District and the City to identify specific reuse plans for the area after cleanup was complete. Together, the three entities determined what the final land conditions should be, including the site drainage and final grade needed to accommodate intended future uses. EPA and the Park District also coordinated on the location of the Family Aquatic Center. Based upon available information, the Park District redesigned the footprint of the facility to avoid contamination and EPA prioritized the cleanup of areas adjacent to the facility to allow for maximum reuse.

EPA followed the same process in regards to the Sewage Treatment Plant site. In addition to the extensive restoration and mitigation planning that occurred for the River OU, EPA collaborated with the local community to incorporate improvements to the sewage treatment outfall (part of the Upland OU) during remedial construction.

Innovation and Flexibility

Innovative legislative tools and flexibility in the regulatory process played an important role in the cleanup of the Superfund sites in West Chicago. In the late 1990s, Congressman Dennis Hastert developed legislation to allow for the reimbursement of costs associated with the cleanup of contamination that may have resulted from research or development of the nuclear defense program in the past. In the Town of West Chicago, the federal government determined 55.2 percent of every dollar spent on the cleanup was eligible for reimbursement by the U.S. Department of Energy (DOE). The availability of reimbursement

Technical Innovations

As part of the restoration of the West Branch of the DuPage River, in-stream structures and habitat complexes disturbed by the cleanup process were mitigated and restored to improve the quantity and diversity of habitats.

- Multiple restoration options were applied depending on location, land use, proximity of nearby structures, and stream characteristics, all with the goal of achieving stable stream banks.
- Affected streambanks were properly sloped and, if needed, reinforced with additional engineered or bioengineered controls to prevent the river from scouring and undercutting the banks.
- Impacted floodplain and upland areas were revegetated where needed and native vegetation was used when and where possible.

The flexible approach to cleanup and restoration of the River OU allowed the team to take advantage of lessons learned and incorporate new and better ideas as the project progressed. John Wills, an engineering contractor and local community representative, remembers, “We originally thought that Super Saks were going to be the greatest streambank stabilization device, and we thought we would have no problem using the river bottom as a haul road, but neither of those ideas worked out.” The approach allowed the plan to ensure the most effective use of resources for restoration to meet the long-term habitat restoration goals for the river.



West Branch Restoration Team (from left: Jamie Geils, WBK Engineering; Jessi DeMartini, Forest Preserve District DuPage County; Ricky Moss, Severson Environmental; Mike Savage, Arcadis and John Wills, WBK Engineering. John “Ole” Oldenburg (taking picture not shown)

funds enhanced cooperation among stakeholders and greatly accelerated the cleanup process.

The Consent Decree signed in 2005 for cleanup and restoration of the Sewage Treatment Plant was another example of how regulatory innovation created a unique process that benefitted the community. According to Tim Fischer, the EPA Remedial Project Manager, typical EPA work plans deal solely with the cleanup aspects of a Superfund site, but this work plan included a strategy for restoration after the cleanup was complete. “What is more unusual is that the *Conceptual Mitigation and Restoration Design Plan* simply provided a framework for an assortment of restoration options that could be applied as part of the cleanup,” he said. “The restoration strategies outlined in the plan were developed as a “best practices” approach to streambank stabilization and restoration and set out a process for how more detailed plans could be created on a reach by reach basis as the cleanup work progressed.”

Agency Collaboration and Support

The cleanup, reuse and revitalization of Reed Keppler Park and the Sewage Treatment Plant, including the adjacent West Branch DuPage River, required careful collaboration between the local governments, and state and federal agencies. Determining which entity would oversee cleanup of which sites and collaborating on the use of the REF as a transshipment point are just two examples of the interagency collaboration.

Cleanup Authority and Approach: One of the first challenges with listing the sites on the NPL was determining who had jurisdiction over which site and would therefore be responsible for enforcing and overseeing the cleanup. After extensive discussions between the NRC, IEMA, and EPA, the regulatory agencies agreed that the radiation regulators, the NRC and IEMA, would oversee cleanup and issues related to the REF facility, such as any ground water migration issues. EPA took on oversight and enforcement responsibilities for the Residential Areas, Reed Keppler Park, Sewage Treatment Plant and Kress Creek sites.

Use of the REF: Coordination with IEMA and the City of West Chicago on the use of the REF as a transfer point for shipping radioactive wastes by rail to a licensed receiving facility in Utah was crucial to the success of the cleanup to date. Remediation of the REF is currently 90% done, but remaining cleanup work is on hold so the site can continue to serve as a waste transfer station. According to Kelly Grahn, the IEMA Radioactive Materials Specialist, the cleanup process for the Kerr-



The hydric soil and gravel materials used in the restored river (lower right) were excavated from the NOAA Sanctuary Pond NOAA project (in background).



The REF serves as a transfer point for shipping radioactive wastes by rail to a licensed receiving facility in Utah. Note the rail cars in the background.

McGee sites would be cost prohibitive without use of the REF to transfer the waste material to a licensed disposal facility. "IEMA is eager to complete remediation and close out the site, and the Town of West Chicago is eager to reclaim the site for use as a City park, but we will hold off until Kerr-McGee's remaining cleanup work is completed," he said. Because completion of cleanup at the REF is dependent on completion of cleanup at the other sites, IEMA and the City remain actively engaged in cleanup discussions and push for efficient remedial work at EPA lead sites.

Benefits of Site Reuse

The remediation, restoration and reuse of Reed Keppler Park and the Sewage Treatment Plant site benefits the community in a number of ways.

Recreational Opportunities

The successful cleanup of Reed Keppler Park resulted in the rededication of the Park as a community amenity with new sports fields and other recreational facilities. The Park's amenities attract an impressive amount of activity each year. The annual "Railroad Days" festival attracts 10,000 – 12,000 people alone. Gary Major, the current Director of the Park District, describes Reed Keppler Park as, "THE community park in West Chicago" and "the central melting pot of activity."

Ecosystem Restoration

By leveraging multiple funding sources, the cleanup and restoration of the West Branch DuPage River has gone beyond restoring the river to its previous condition. As a result of the restoration of the West Branch of the DuPage River, the river is now considered one of the "ecological jewels of DuPage County."

Conclusion

The redevelopment and restoration of Reed Keppler Park and the Sewage Treatment Plant, including the West Branch of the DuPage River, illustrates how community engagement, collaborative partnerships between local, state and federal agencies, and flexible planning can result in successful outcomes: the protection of human health and the environment, community revitalization, and the enhancement of the community's natural resources.

One of the most valuable lessons learned was the benefit of early coordination regarding cleanup and future use. Local, state and federal parties collaborated to ensure the park facility construction and sewage treatment plant expansion could move forward safely while continued investigation and remediation was underway. As Barb Magel, Counsel for the local communities, emphasized, "The project had interest at all levels, and everyone pulled together to solve problems to achieve the successes we have today."

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