The Sioux Falls brownfields project: analysis of project issues and tools used

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Abstract

This paper will summarize the Sioux Falls Brownfields Project that was awarded by the Environmental Protection Agency in 1997. It will provide a background to the project along with the issues and the tools that were used by the project team in order for the project to move forward. The emphasis of the paper will be about the lessons that were learned which will assist other communities that are found in rural areas that don't have the experience that is typically found in more populated areas. Some of the issues that will be discussed include access issues; sites with existing operations; unknown cleanup standards; and the City's potential liability. This project has been a learning experience for all of the stakeholders and will eventually result in the success of a new park and creation of a commercial/retail redevelopment area. The downtown has slowly emerged from distress. Once the final milestone is completed, it will be a significant step in revitalizing the rest of the downtown area of Sioux Falls, South Dakota. This project will be used as a model for other smaller communities located in areas that are considered to be rural because of population size.

Keywords: brownfields, Sioux Falls, project management, issues, tools, EPA.

1 Introduction

The Sioux Falls Brownfields project (the “site”) is located on the Big Sioux River corridor at the north edge of Sioux Falls Downtown. The site was used as a former salvage operation, a brickyard, railway tracks, and a public riverbank. The majority of the site was owned by Pitts Inc. which used the property for scrap metal salvaging, lead-acid battery storage, and shipping of metal parts. The site is approximately 17 acres and is bordered on the north and west by
Phillips Avenue, the south by Falls Park Drive, and the east by the Big Sioux River.

According to old historic aerial photographs, part of the site was previously used for railroad operations. The site included a large rail yard with a roundhouse, shop building, and tracks. The roundhouse was located on the north end of the Pitts property from 1928 until 1992 when it burned down. The roundhouse was used for engine repair, refueling, maintenance, etc., and operated until 1965. A former landfill area was also identified on the site. In the early 1900's, citizens and businesses deposited their trash in a wetland area adjacent to the Big Sioux River. The purpose of filling in the area was to force the river to flow more directly past a nearby grain mill and make the land more useable for commercial purposes.

The site currently creates a physical barrier between the City’s popular Falls Park attraction and the Sioux Falls downtown area. With the brownfields site being in this crucial location, it currently separates the Falls Park and northern downtown. The proposed plan includes expansion of Phillips Avenue to Falls Park Drive creating a key roadway necessary to connect the two popular visitor destinations; the development of public park facilities; replacement of several rail switching yards with a single rail throughway; and the creation and expansion of private commercial/retail redevelopment sites.

In 1997 the City of Sioux Falls received a $200,000 brownfields grant from the Environmental Protection Agency (EPA) to help fund outreach, assessment, and cleanup planning for the project. At the time they received the grant, the City did not own any of the parcels making up the site. By August of 1998, all the parties agreed to a phase II sampling plan that incorporated future land use of the site. Later that same year, the City of Sioux Falls received an additional $200,000 as a brownfields showcase finalist because the project had lots of community and public support. This additional funding was to be used for environmental sampling once the phase II commenced. The sampling was delayed, however, for 2-3 years because of access issues. It has not been until recently that work on the project has been able to proceed forward with sampling. A second round of sampling was just recently completed which consisted of about 200+ samples analyzing primarily lead (Pb) in soils using an x-ray fluorescence detector and Toxicity Characteristic Leaching Procedure (TCLP) sampling since Pb was found in significant quantities after the first round of sampling. Sampling has since been completed and now the plan is to excavate the majority of the soil from where the road will be expanded and in part of the park area to an offsite disposal facility. Some of the soils will also be disposed on the park site area as well. The majority of the park area will then be capped and properly maintained by the City to be used as a park/recreational area. A small portion of the site (to the west of the road expansion) will be used to create new commercial/retail redevelopment to revitalize the rest of the northern portion of the downtown area.

EPA is involved through the oversight of the grant project scope of work, schedule, and budget, while the rest of the project team consists of the following:
The City of Sioux Falls - The Planning Department of the City of Sioux Falls applied for and received two brownfields grants from the EPA to conduct outreach, assessment, and planning on the designated brownfields sites they identified. Other City stakeholders involved include Real Estate Specialists, City Attorneys, City Health, City Public Works, City Parks, and City Engineering.

South Dakota Department of Environment and Natural Resources (DENR) - Because this is a brownfields site, it is not a traditional site that EPA oversees when it comes to cleanup decisions. Typically, brownfields sites are cleaned up under State Voluntary Cleanup Programs since the sites are not regulated under any Federal program. However, the City of Sioux Falls will be the first “pilot” to proceed under the State’s cleanup program so it has been a learning experience for state officials who oversee the work from the State’s Ground Water Program. The Ground Water Program has the lead, but the State Resource Conservation and Recovery Act (RCRA) program and the State Department of Transportation are involved as well.

Pitts Inc. - Since the City received the brownfields grant funding from the EPA while Pitts Inc. was still an operating facility, the owners of Pitts Inc. had a vested interest with the activities that were to be conducted as a result of the project designation.

I-29 Brickyard Company - This was being leased as a brickyard company and thus the current owners plus the lessee were considered stakeholders.

Burlington Northern & Santa Fe Railway Company (BNSF) - they currently own and operate one of the rail lines that passes through the brownfields site.

Political Officials - This project was considered to be one of former Mayor Gary Hanson’s priorities at the time the City received the grant. The new Mayor has committed to have the cleanup and road expansion for this project underway by the summer of 2004. Also, both the Secretary of DENR and Senator Tom Daschle have been very active and supportive of this project.

HDR Engineering, Inc. - HDR Engineering, Inc. was selected to be the primary contractor for the City.

Leggette, Brashears, Graham, Inc. (LBG) - was selected as the subcontractor.

Sioux Falls Community - the City of Sioux Falls and its residents are directly affected including those with a direct stake in the central business district. In addition, there are two central neighborhoods in the project’s vicinity that are also affected.

2 Project management issues

Throughout the project, the project management team ran into obstacles that had to be dealt with in order to accomplish the overall goal of cleaning up and revitalizing the area. The project issues are summarized below:
2.1 Access issues

At the time that the City of Sioux Falls received the brownfields grants, all of the properties were owned and controlled by four different property owners: Pitts Inc., I-29 Brickyard, BNSF Railway Co., and the State Department of Transportation. Because the brownfields program is voluntary, there was no requirement mandating the property owners to provide access in order for sampling to occur. This resulted in significant delays in the project. Because of the delays, these issues became significant and disruptive to the project.

2.2 Existing operation as a designated brownfields site

The owner/operator of Pitts Inc. was very unhappy with the fact that his site was designated as a brownfields site without first being told through some type of community involvement prior to the City receiving the brownfields grant. In his mind, it was a lose/lose situation since he was operating a business and was expected to either transfer his business elsewhere or shut it down. His concern was also from a history of distrust with the City, so it was considered to be a significant issue.

2.3 Unknown cleanup standards under the South Dakota Cleanup Program

Because this was the first brownfields project in the State of South Dakota and it was the first voluntary cleanup to occur, there were many uncertainties as to what the cleanup standards/requirements would be for the project. When first discussing data quality objectives for the sampling plan, there were many unknowns as to what the State might require for ground water cleanup, soil cleanup levels, waste management, etc. These uncertainties led to emerging issues that needed to be addressed before the project could proceed.

2.4 The City’s potential liability

The City was unsure about its liability if it acquired the site. It was also not understood what the regulatory authorities would require in terms of cleanup. The City was responding to the many unknowns; and thus, it became an emerging issue.

2.5 Communication of cleanup and risks

Because this project has been a high priority for the City, the community has been kept abreast about project updates and significant milestones. It will be important to communicate any cleanup decisions that are made for this project and to explain how the cleanup will reduce/eliminate future potential risks to human health and the environment.
3  Project management tools that were applied to the specific issues that were identified

3.1 Access issues

Some of the issues that delayed the project the most were trying to obtain access on properties that were not owned by the City. In the past, brownfields were defined as “Abandoned, idled, and underused commercial or industrial properties where expansion or redevelopment is complicated by real or perceived environmental contamination.” The City identified the Pitts Inc. salvage yard as the primary brownfields site because it was in a crucial location. The Pitts Inc. salvage yard separated the northern portion of downtown Sioux Falls from the Big Sioux River Falls Park area. As a result, the City identified this site as “underused” because it was an eyesore between the two crucial locations. In addition, the two other critical locations were also owned by private entities. Burlington Northern and Santa Fe Railroad and the State Department of Transportation owned the rail tracks. The I-29 Brickyard was owned and leased by private parties. At the time the grant was awarded to the City of Sioux Falls, EPA was unaware of the complexities of ownership that existed with all of the different property owners.

As a result of the private property ownership and access issues, EPA changed its guidelines to ensure that future applicants were required to address how they would gain access if the property was privately owned. For the Sioux Falls project, the EPA contracted with a third party mediator who assisted with negotiations between the City and the property owners. Although the negotiations helped build trust, the City still used threats of condemnation which further made things difficult. The project team used communication planning tools and conducted a stakeholder analysis to gather the needs of the property owners to develop a plan on how to address their concerns. By incorporating their concerns and allowing them to participate in the planning of the project, it initially helped with negotiations between the City and some of the property owners. However, because the City was on a fast track and some of the negotiations were taking too long, it eventually led to condemnation proceedings between the City and some of the property owners. This ended up further delaying the project.

3.2 Existing operation as a designated brownfields site

Pitts Inc. was designated by the City as the primary brownfields site. This was done unbeknownst to the property owners and operator. When it was first discovered that the Pitts Inc. property was being targeted by the City and was listed as an EPA brownfields project, the EPA was notified by the property owners that they were extremely unhappy with the “formal” designation. EPA was responsible for not requiring community involvement and notification for the actual proposal that was submitted prior to selecting and awarding the project. The City was responsible because they had indicated in the proposal
that all stakeholders were involved in the project, which was not the case with the property owners. As a result, EPA changed its guidelines to require community notification and involvement at the earliest stage of the brownfields process and required public comment for all of the brownfields grant proposals. In addition, the property owners became active stakeholders and participated in the development and decision making for the sampling and quality assurance project plan for the phase II assessment. The change in the brownfields guidelines and the active participation of the property owners as stakeholders helped build trust between the EPA, City, State, and the property owners.

3.3 Unknown cleanup standards under the South Dakota Cleanup Program

Because this was the first major brownfields site to be cleaned up under the State’s Voluntary Cleanup Program, it was viewed as a “pilot” for the South Dakota Department of Environment and Natural Resources (DENR). One of the main uncertainties that existed is what the State would require in terms of cleanup levels for soils and groundwater. The EPA worked with several stakeholders to develop a sampling and quality assurance project plan that the group could all agree to. This plan included “site-specific” screening levels that were developed based on anticipated risk for the future use of the site by using a conceptual site model. For instance, when determining risk for the planned park, certain mathematical models were used to incorporate different risk measures for each of the potential routes of exposure based on the conceptual site model. These screening levels were then documented in the sampling and quality assurance project plan which represented agreement by the EPA, State, and other stakeholders because it was signed by all the parties. In addition, it gave assurance to the stakeholders that the State approved these site-specific levels and thus there were fewer uncertainties.

3.4 The City’s potential liability

The future long-term goals of the City included acquisition of the properties. After the phase I was completed, it was known that environmental conditions were present at the site but it was unclear to what extent the contamination existed. Although trust was built between the EPA, City, State, and other stakeholders, the Pitts Inc. property owners and operator still refused site access without some kind of liability protection. In addition, the City staff were fearful about acquiring a property without first conducting any sampling to help determine their liability as a future prospective purchaser of the site.

Tools that were considered by the project team included risk management tools such as environmental cleanup insurance, indemnification agreements, comfort letters from the EPA, and research of other similar types of sites/brownfields in other parts of the country. Although the various tools were used to some degree, the project became somewhat political and the City ended up negotiating a purchase price for the property, which included an indemnification agreement to indemnify the Pitts Inc. owners and operator for any future liability on the site. The result ended up in a compromise between the
parties because the existing operation eventually shut down and the City (i.e., the taxpayers) took on any and all future liability.

Table 1: Summary matrix of project management issues and tools.

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<th>Major Issues</th>
<th>Project Management Tools Utilized/Identified</th>
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| Access Issues                                    | • Changes to the guidelines to require access agreements  
• Third party mediation to assist with communication and negotiations between the City and the property owners  
• Communications planning and stakeholder analysis |
| Existing Operation as a Designated Brownfields Site | • Changes to the guidelines to require notification and community involvement prior to submitting a proposal  
• Active participation of stakeholders and incorporation of stakeholder skills and knowledge in the decision-making |
| Unknown Cleanup Standards Under the State Program | • Development of site-specific screening levels  
• Creation of a conceptual site model  
• Creating a contract (sampling plan) that all the parties agreed to in order to reduce uncertainties |
| The City’s Potential Liability                   | • Various risk management tools such as environmental cleanup insurance, indemnification agreements, comfort letters, and research of other similar types of sites |
| Communication on Cleanup and Risks               | • Development of a community relations plan which will include a description of community involvement including a public comment process  
• Ensure adequate support from EPA Technical Contractors, Toxicologists and/or the staff with the Office of Research and Development to ensure risks are eliminated  
• Brainstorming tools to anticipate concerns  
• Live web cam provided by the City of Sioux Falls |
3.5 Communication on cleanup and risks

Throughout the project, the community has been kept abreast about project updates and significant milestones. It is important to communicate the cleanup decisions to the community and explain how it will reduce/eliminate future potential risks to human health and the environment. If the City receives a brownfields cleanup grant, the EPA will require that a community relations plan be developed which will provide information as to how the community will be involved to ensure successful cleanup and reuse of the site. The community relations plan will need to address cleanup levels, the proposed site remediation plan, and allow a community public comment process to ensure that any concerns are addressed prior to actual commencement of cleanup. In addition, EPA has access to technical contractor staff, EPA Toxicologists, and/or the staff with the EPA Office of Research and Development to explain any risk health concerns to the community if it is necessary. The EPA may use brainstorming tools to anticipate concerns and questions that may arise during the community involvement and comment period of the project. Also, the City set up a web cam that is accessible by the public at any time. By using this creative and innovative device for community outreach, anyone can see ongoing work that has already begun on the project site. The website address is located at: http://www.siouxfalls.org/citywide/philippscameras.asp.

4 Conclusions

The EPA Brownfields program started out as an initiative and initially funded “pilot projects.” Each of the pilot projects have run into obstacles and issues, but as a result, lessons learned in the field will be applied to future projects. One of the great successes of this program is the sharing of project management tools that were used to address issues that affect brownfields throughout the country. This project has been a learning experience for all of the stakeholders and will eventually result in the success of a new park and creation of a commercial/retail redevelopment area in the City of Sioux Falls.

References

[1] Big Sioux River Redevelopment Corridor: A Pilot Project Proposal Submitted Under the Brownfields Economic Redevelopment Initiative, Mr. Steve Metli, Director of the Department of Planning and Building Services, Sioux Falls, SD, July 1996.