

William Thomas

Mr. Bateman

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Bloomfield's Brownfield

Americans drive by brownfields every day where they see abandoned oil rigs with broken-down industrial machinery or a deserted space in the midst of a neighborhood. A “brownfield” is a site that can be potentially dangerous to a nearby community. Brownfields need to be decontaminated because the potential toxins within the soil can be a health hazard, as well as destroy the surrounding environment. Whether a community decides to decontaminate a brownfield site or to take a step further and redevelop the site, it is a necessity for the health of the nearby community. Bloomfield, New Mexico contains a brownfield site at the intersection of Blanco and 5th Street that used to be the site of an oil refinery which has great potential for redevelopment. Though it will cost the town to rebuild, with the help of grants, the outcome of rebuilding will far outweigh the expense. The brownfield at the intersection of Blanco and 5th Street in Bloomfield should be decontaminated and then turned into a skate park.

Brownfields are a more concerning issue than they may appear. A brownfield site is defined by Rebecca Cook, Jennifer Muus and Savannah Richards on the New Mexico Environment Department (NMED) website as a “property whose redevelopment is complicated by the presence of contamination or perceived contamination.” This contamination can be exposed through the process of erosion. Rain causes the pollutants to soak into the ground of brownfield sites over time. The toxins hide under the surface, waiting to be uncovered and to infect local water stores. Hannah Shayler, Murray McBride and Ellen Harrison report that soil

pollutants spread all over communities through air and the water supply (p. 1). The same source confirms that pollutants infect the water by leaching out of the soil and entering underground pipes. When topsoil becomes dry, the wind can blow it over wide expanses of the local community (p. 4). The assessment and decontamination of Bloomfield's brownfield site needs to be done before harmful pollutants show up in nearby water supplies and before erosion exposes toxins, allowing them to become airborne.

The environment and aesthetics of Bloomfield are negatively impacted by the brownfield. Brownfield contamination leaves desolate plots of land that cannot grow anything. Bloomfield's brownfield is no exception. It is a deserted lot cut in half by the intersection of Blanco and 5th Street. Dead plants and trash litter the ground with tumbleweeds piling up in corners and next to houses. Concrete platforms and metal rods stick out of the ground in various places. An old, green oil tank looms over the abandoned lot. The trash and dead plants give this place a grimy, ugly appearance. This contributes to the negative aspects of the brownfield, devaluing nearby properties due to contaminants depleting the land of nutrients and the extensive trash build up. Refurbishing the area will increase property value and overall pride in the community.

In a report filed by the City of Bloomfield in 2006, it describes the history of the site and the extent of the contaminants. Justin Bell reported that "The former Aerex refinery operated from approximately 1932 to the 1960's and was disassembled in the 1980's" (p. 1). The brownfield has been around for over 40 years leaving an unutilized and potentially dangerous site unmonitored. Hydrocarbons are produced from many forms of petroleum and are highly dangerous. Bell stated that "the facility refined crude oil from wells in the Bloomfield area utilizing fractional distillation to produce gasoline, kerosene, and other petroleum products" (pp.

1-2). A New Mexico Environmental Improvement Department investigation that Bell refers to, confirms that the site is contaminated by reporting that “Hydrocarbon concentrations in soils were detected... from a sample obtained from 13-25 ft bgl (below ground level)” (p. 2). This site has been around slowly contaminating and poisoning the environment for years. The area needs to be revitalized and decontaminated to make the Bloomfield community a safer place and also increase property values.

The brownfield’s contaminants along with its grotesque appearance puts a damper on the local real estate. For example, Oana Mihaescu and Rainer Vom Hofe state that “reducing the distance from 500 to 0 feet results in a decrease of residential property values of 14.59%” (p. 10). Mihaescu and Vom Hafe go on to give several graphs showing that as the distance between a brownfield reduces, the property values decrease to a maximum of about 22% at zero feet away from the brownfield (p. 12). Though this survey was completed in Ohio, a very different state than New Mexico, brownfields have similar effects on real estate everywhere. The brownfield in Bloomfield contains lots of trash, old concrete platforms and oil spill stains that need to be managed. Cleaning up the confirmed contamination will benefit the property values near the brownfield.

The best place to start working on the brownfield in Bloomfield is for it to be cleaned of potential and factual health hazards. To do so, Bloomfield needs a way to pay for the expenses. Cook, Muus and Richards’ brochure for brownfields informs communities in New Mexico of the “brownfield revolving loan fund”, a program that consists of low interest loans and flexible repayment terms as reiterated on the NMED brochure. This program will help Bloomfield pay for decontamination of the site. The cost of redevelopment will be paid for by grants that the NMED offers. After the site is cleared of all contaminants, volunteer workers will also help the

city be able to complete this project. To pay for a park facility like a skatepark, the city manager needs to get developers interested in the idea. Developers will greatly help this project take flight and help find a reasonable budget for the city.

After decontamination, the next step is to find a simple and effective way to create a community asset, and a skatepark will provide this. Cook, Muus and Richards from NMED state that, “Cleaning up and reinvesting in these properties (brownfields) can restore the environment, reduce health risks, eliminate blight, revitalize downtowns, create jobs, increase local tax bases, and create a sense of community pride.” For the brownfield at the intersections of 5th Street and Blanco, the most cost-efficient way to restore the property is to build a skatepark. Bloomfield doesn’t have many areas for children and teenagers to socialize safely, aside from a few parks. A skatepark would give the youth of Bloomfield more pride in their community and something to brag about. Additionally, a skatepark provides something that is not overly expensive and not too difficult to plan and build.

Planning for this project can be done by the community of Bloomfield with help from city employees. The city has already created a student workshop informing the students of the contaminants and how the city is going to pay for the clean-up. Jason Thomas states on a brownfield presentation that there is “soil and groundwater contamination” (p. 3). The same presentation indicates that bioventing is in process on the brownfield site (p. 3). Bioventing is defined on “How to Evaluate Alternative Cleanup Technologies for Underground Storage Tank Sites” as the use of

indigenous microorganisms to biodegrade organic constituents adsorbed to soils in the unsaturated zone... the activity of the indigenous bacteria is enhanced by

inducing air (or oxygen) flow into the unsaturated zone (using extraction or injection wells) and, if necessary, by adding nutrients (p. 5).

Decontamination will move more rapidly with the process of bioventing, reducing the time needed for the project which reduces the cost and permitting the transition from decontamination to redevelopment to be swifter.

As a skatepark is not the only way the brownfield could be redeveloped, other possibilities could be considered, but revitalizing the site with a skatepark will be the most cost-efficient option. On the “US Skatepark Overview” it estimates that a skatepark costs \$40-45 per square foot to build. Additional ideas include residential, business, parking and apartments, all of which are great ideas, but are more expensive. Starting the redevelopment of this property should be inexpensive and get the community excited for what could come. A skatepark is a facility that Bloomfield does not yet have and would inspire the youth of the community to help and plan the project.

A business area could be a nice aspect to add to the city. Cook, Muus and Richards state on the NMED website for brownfields that this would “create jobs and increase local tax bases”, also increasing the economy. Residential and apartment complexes would help increase the population which has countless effects on the community. Turning the brownfield into parking lots would be inexpensive, but not a lot of parking space is needed in that particular area in Bloomfield.

These ideas for redevelopment are all good, but a skatepark would get large amounts of use in addition to being inexpensive. Making a skatepark is the best option at this point in the process. The business, residential and apartment areas mentioned would require a decontamination of the soil up to 12-20 feet underground. This amount of soil needs to be

cleaned due to the water and electric lines that are inserted underground. However, Bloomfield assistant City Manager Jason Thomas states that a skatepark requires only about 4 feet deep of soil to be decontaminated, reducing the price of decontamination greatly (p. 7).

The brownfield in Bloomfield located at the intersections of 5th Street and Blanco requires persistence and help from the community to be redeveloped. A new area where the youth can feel comfortable would be an asset that Bloomfield doesn't really have at this time. The brownfield needs to be cleared of all toxins to keep the community safe and to get the site ready for refurbishment. This will help the community's residential property values increase and the remediated site will give Bloomfield pride. Decontamination of the site will reduce risk of leaked petroleum to enter water supplies and keep the local environment from degrading. The potential for redevelopment that this site has is almost overwhelming. Bloomfield's brownfield is ready to start the process of revitalization with help from the community. This project will be affordable and provide a skatepark for Bloomfield's youth.

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